

Prüfbericht-Nr.: Test report no.:	CN25Z872 001	Auftrags-Nr.: Order no.:	326140267	Seite 1 von 90 Page 1 of 90
Kunden-Referenz-Nr.: Client reference no.:	/	Auftragsdatum: Order date:	2025-11-26	
Auftraggeber: Client:	Ecovacs Home Service Robotics Co., Ltd. No.518 Songwei Road,Wusongjiang industry Park,Guoxiang Street, Wuzhong District,Suzhou, Jiangsu,China.			
Prüfgegenstand: Test item:	AI Companion Robot			
Bezeichnung / Typ-Nr.: Identification / Type no.:	FZD11			
Auftrags-Inhalt: Order content:	Complete test			
Prüfgrundlage: Test specification:	FCC CFR47 Part 15, Subpart C Section 15.247 ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024			
Wareneingangsdatum: Date of sample receipt:	2025-11-19	Refer to the photo document		
Prüfmuster-Nr.: Test sample no:	A004142197-001			
Prüfzeitraum: Testing period:	2025-12-12 ~ 2026-01-20			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:	X Yanli Fan		genehmigt von: authorized by:	X Tianlin Li
Datum: Date: 2026-01-22	Signed by: Yanli Fan		Ausstellungsdatum: Issue date: 2026-01-22	Signed by: Tianlin Li
Stellung / Position:	Sachverständige(r)/Expert		Stellung / Position:	Sachverständige(r)/Expert
Sonstiges / Other:	FCC ID: 2A64B-FZD11			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

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Test report no.:

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Anmerkungen
Remarks

1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. <i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i>
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4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2023, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. <i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2023, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i>

TEST SUMMARY

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 6dB & 99% BANDWIDTH

RESULT: Pass

5.1.3 OUTPUT POWER

RESULT: Pass

5.1.4 POWER SPECTRAL DENSITY

RESULT: Pass

5.1.5 CONDUCTED BAND EDGE AND OUT-OF BAND EMISSIONS

RESULT: Pass

5.2.1 CONDUCTED EMISSION

RESULT: Pass

5.3.1 RADIATED BAND-EDGE

RESULT: Pass

5.3.2 RADIATED SPURIOUS EMISSION

RESULT: Pass

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1. General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Photographs of the Test Set-up

2. Test Sites

2.1 Test Facilities

TÜV Rheinland (Shanghai) Co., Ltd.
No.14 building and north half of No.10 workshop building, No.525, Yuewang Lingang South Road, Pingqian (Taicang) Modern Industrial Park, Shaxi Town, Taicang City, Jiangsu Province, P.R. China

The used test equipment is in accordance with CISPR 16 for measurement of radio interference.

The Federal Communications Commission has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance with the requirements of section 2.948 of the FCC rules. The description of the test facility is listed under FCC registration number 930979.

The Innovation, Science and Economic Development Canada has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance. The description of the test facility is listed under chambers filing number 33038.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Equip.	Description	Model	Manufacturer	Due Date
EMC-C-317	Thermohygrometer	608-H1	testo	2026-06-10
EMC-C-304	OSP	OSP-B157W8	Rohde & Schwarz	2026-12-17
EMC-C-303	Vector signal generator	SMW200A	Rohde & Schwarz	2026-11-17
EMC-C-302	Signal generator	SMB100B (6 GHz)	Rohde & Schwarz	2026-11-17
EMC-C-196	Wireless connectivity tester	CMW270	Rohde & Schwarz	2027-08-09
EMC-C-161	Spectrum analyser	FSV40	Rohde & Schwarz	2026-07-11
EMC-S-036	RF measurement software	WMS32-WB (11.40.00)	Rohde & Schwarz	N/A
EMC-S-032	EMI measurement software	EMC32-MEB (10.60.20)	Rohde & Schwarz	N/A
EMC-C-018	Double ridged horn antenna	BBHA 9120 D	Schwarzbeck	2026-03-24
EMC-C-066	EMI test receiver	ESCI	Rohde & Schwarz	2026-09-28
EMC-C-121	Thermohygrometer	608-H1	testo	2026-06-05
EMC-C-155	BiLog antenna	CBL 6112D	Teseq	2026-09-24
EMC-C-068	Broadband horn antenna	BBHA 9170	9170-305	2028-06-18
EMC-C-001	3 m semi-anechoic chamber	SAC3	Frankonia	2026-12-03
EMC-C-176	Preamplifier	EMC184045SE	EMCI Taiwan	2026-07-11
EMC-C-175	Preamplifier	EMC051845SE	EMCI Taiwan	2026-07-11
EMC-S-028	EMI measurement software	EMC32-E+ (10.60.20)	Rohde & Schwarz	N/A
EMC-C-366	Thermohygrometer	608-H1	testo	2026-07-11
EMC-C-195	EMI test receiver	ESR3	Rohde & Schwarz	2026-08-02
EMC-C-190	Artificial mains network	ENV432	Rohde & Schwarz	2026-09-02

2.3 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

Table 2: Measurement Uncertainty

Measurement Type	Frequency	Uncertainty
Antenna Port Conducted Emission	< 1GHz	±0.39dB
	> 1GHz	±0.68dB
Conducted Emission	150kHz - 30MHz	±3.39dB
Radiated Emission	9kHz - 30MHz	±2.93dB
	30MHz - 1GHz	±5.34dB
	> 1GHz	±5.40dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT (Equipment Under Test) is a AI Companion Robot which contains 2.4GHz Wi-Fi function.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Description of EUT	
Product Name:	AI Companion Robot
Model No.:	FZD11
Operation Voltage:	DC 5-20V
Test voltage	DC 7.2V by Battery
Technical Specification of WI-Fi	
Frequency Range:	2412 to 2462MHz for 802.11b/g/n-HT20 2422 to 2452MHz for 802.11n-HT40
Modulation Type:	DSSS (CCK, DQPSK, DBPSK) OFDM (QPSK/BPSK/16QAM/64QAM)
Antenna Type:	FPC Antenna
Antenna Gain:	1.09dBi

Table 4: Operation Channel List

Wi-Fi 802.11 b/g/n-HT20

RF Channel	Frequency [MHz]	RF Channel	Frequency [MHz]	RF Channel	Frequency [MHz]	RF Channel	Frequency [MHz]
1	2412	5	2432	9	2452	13	2472
2	2417	6	2437	10	2457	-	-
3	2422	7	2442	11	2462	-	-
4	2427	8	2447	12	2467	-	-

Wi-Fi 802.11 n-HT40

RF Channel	Frequency [MHz]	RF Channel	Frequency [MHz]	RF Channel	Frequency [MHz]
3	2422	6	2437	9	2452
4	2427	7	2442	10	2457
5	2432	8	2447	11	2462

3.3 Independent Operation Modes

Test frequencies are lowest channel: 2412/2422 MHz, middle channel: 2437 MHz and highest channel: 2462/2452 MHz

The basic operation modes are:

A. On, Wi-Fi transmitting mode

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024

Test Software used: adb

Table 5: Power parameter value

Operating Mode	Channel Frequency [MHz]	Power Parameter Value
802.11b	2412	12
	2437	12
	2462	12
802.11g	2412	11
	2437	11
	2462	11
802.11n-HT20	2412	11
	2437	11
	2462	10
802.11n-HT40	2422	11
	2437	11
	2452	11

4.3 Special Accessories and Auxiliary Equipment

Table 6: Special Accessories

Accessories	Parameter
RF Cable between the antenna port and test system	Cable loss: 0.5dB

Note: The RF cable used in the test was provided by

☐ Client

☒ Test Lab

And the cable loss has been factored in the related test.

Table 7: Auxiliary Equipment

Equipment	Brand	Model Number	Serial number
Laptop	Lenovo	EMC-COMP-026	PF-49VKS3

4.4 Countermeasures to achieve EMC Compliance

Null.

5. Test Results

5.1 Conducted Testing at Antenna Port

5.1.1 Antenna Requirement

RESULT:**Pass**

According to the manufacturer declared, the EUT has one PCB antenna, the directional gain of antenna is 1.09 dBi and the antenna is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

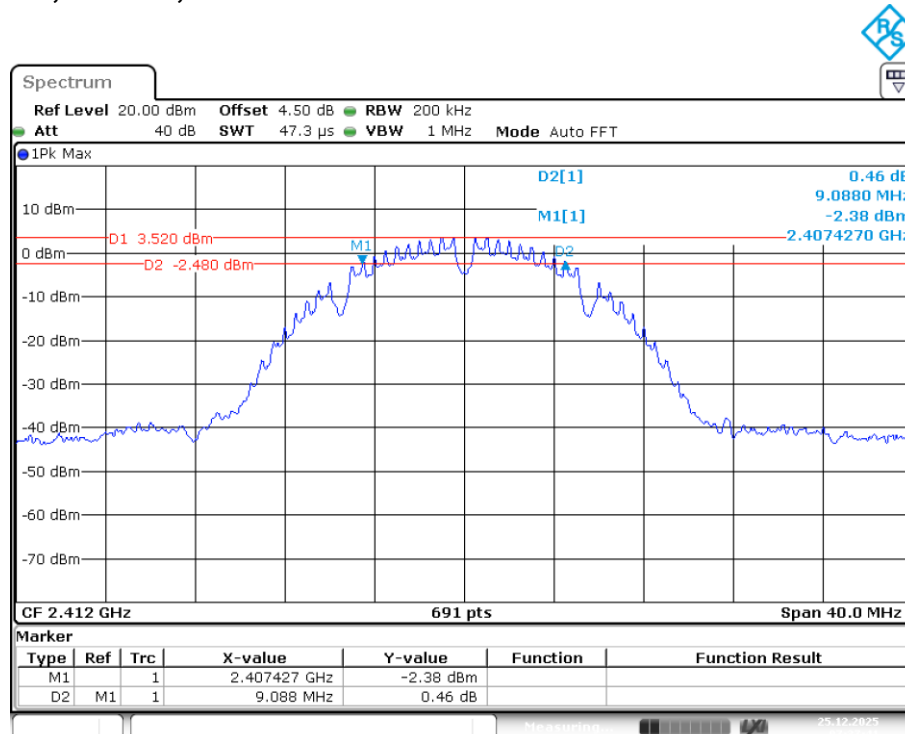
Table 8: Antenna Requirement

FCC 15.203 – Antenna Requirement 1	
Requirement:	No antenna other than that furnished by the responsible party shall be used with the device
Results:	Antenna type: FPC antenna
Verdict:	Pass

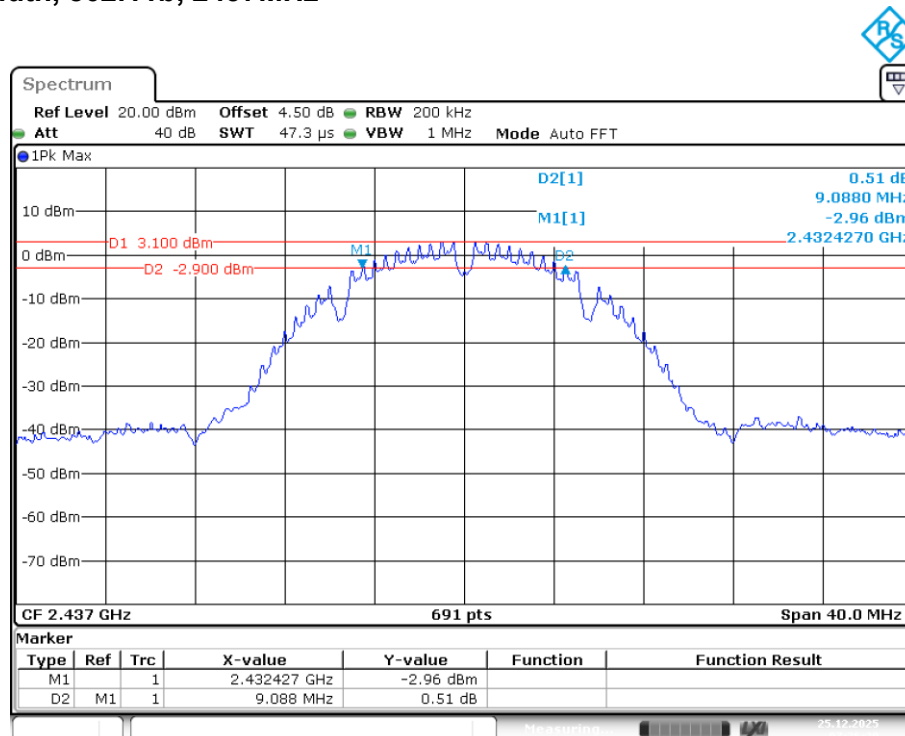
FCC 15.204 – Antenna Requirement 2	
Requirement:	An intentional radiator may be operated only with the antenna with which it is authorized. If an antenna is marketed with the intentional radiator, it shall be of a type which is authorized with the intentional radiator.
Results:	Only one FPC antenna can be used
Verdict:	Pass

Prüfbericht - Nr.: CN25Z872 001
Test Report No.**Seite 13 von 90**
Page 13 of 90**5.1.2 6dB & 99% Bandwidth****RESULT:****Pass**

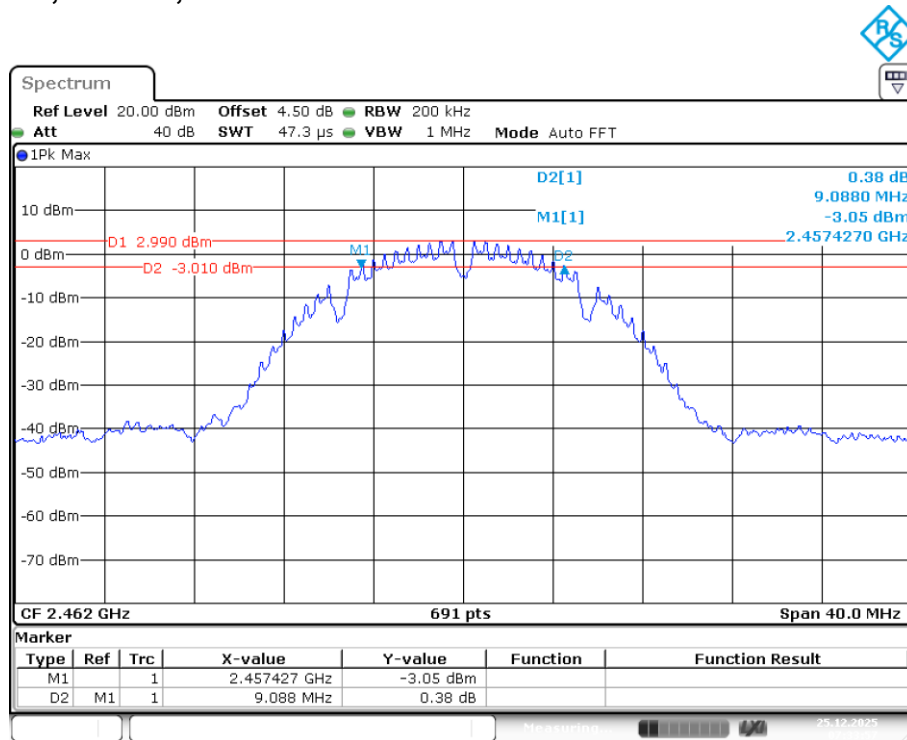
Date of testing	:	2025-12-25
Ambient temperature	:	20.5°C
Relative humidity	:	40.2%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(a)(2)
Test procedure	:	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	A

6dB Bandwidth, 802.11b, 2412MHz


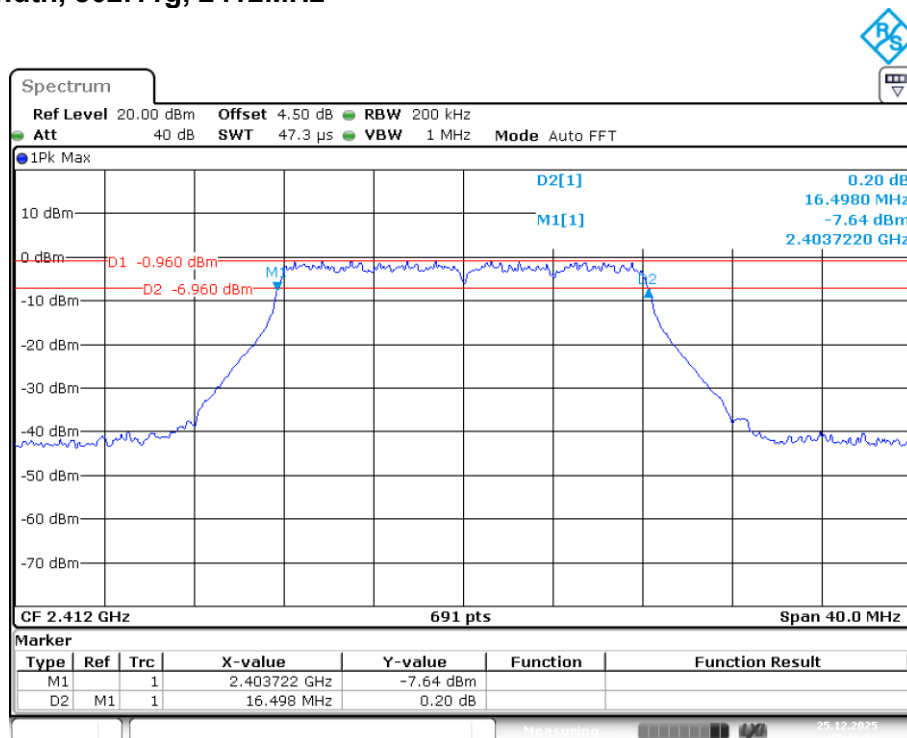
Date: 25.DEC.2025 07:37:42

6dB Bandwidth, 802.11b, 2437MHz


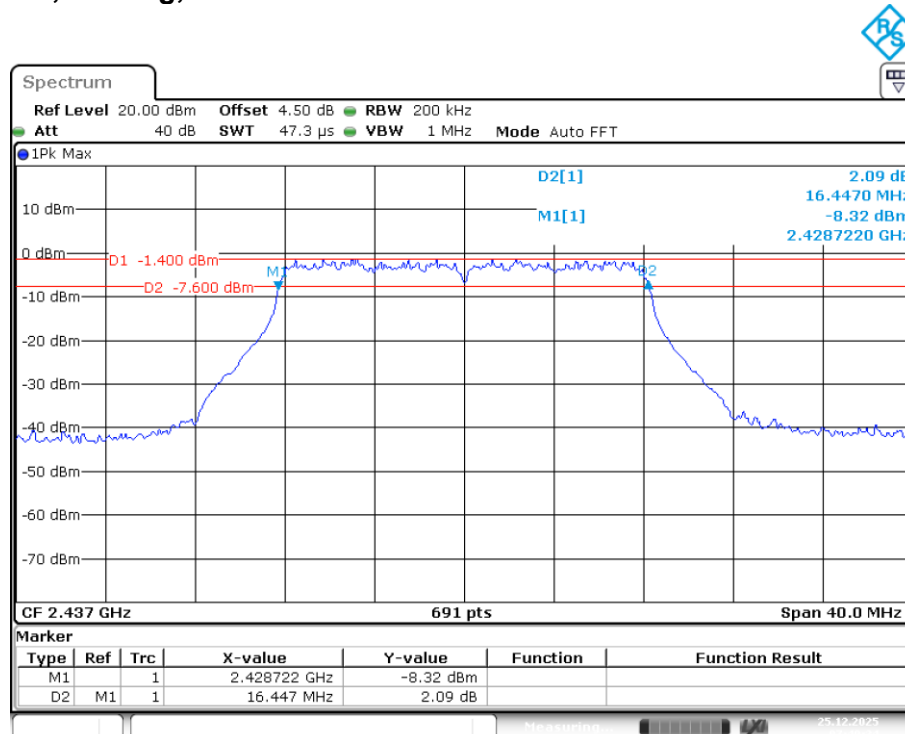
Date: 25.DEC.2025 07:36:30

6dB Bandwidth, 802.11b, 2462MHz


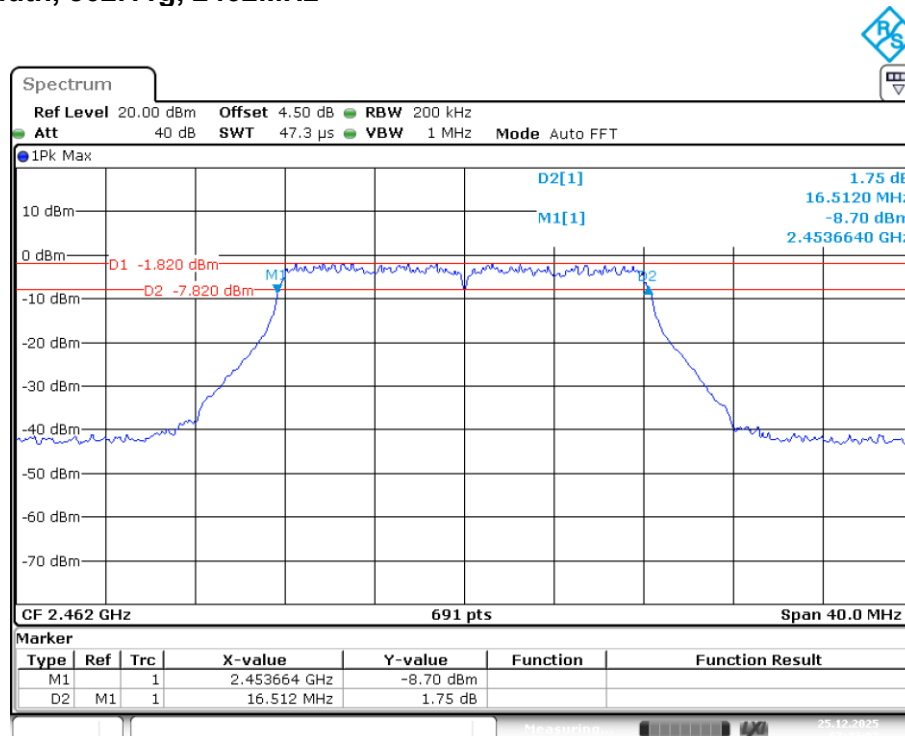
Date: 25.DEC.2025 07:33:58

6dB Bandwidth, 802.11g, 2412MHz


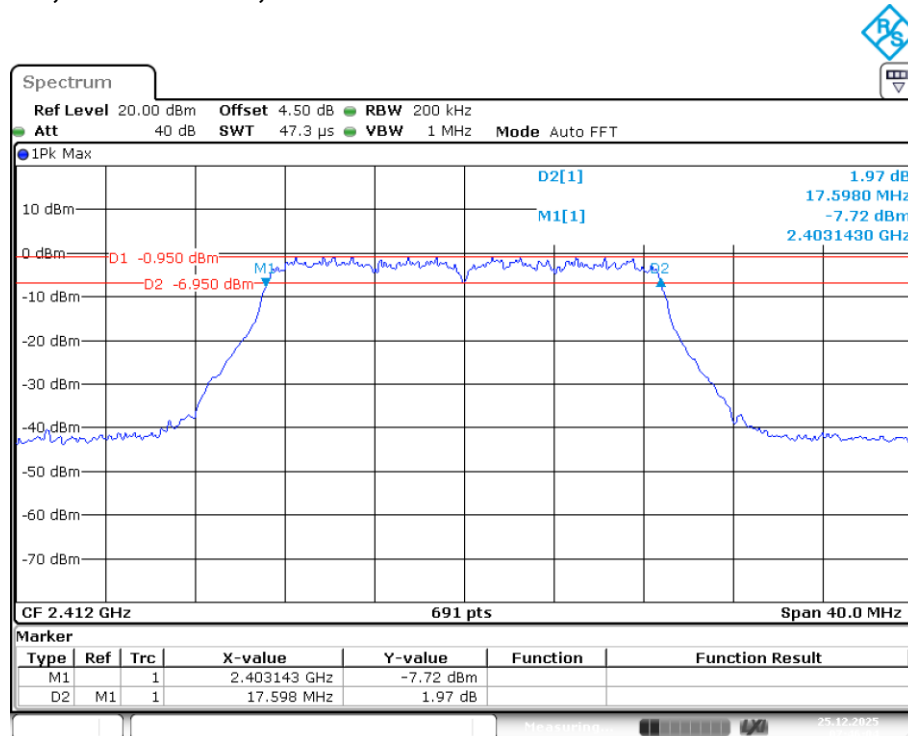
Date: 25.DEC.2025 07:38:56

6dB Bandwidth, 802.11g, 2437MHz


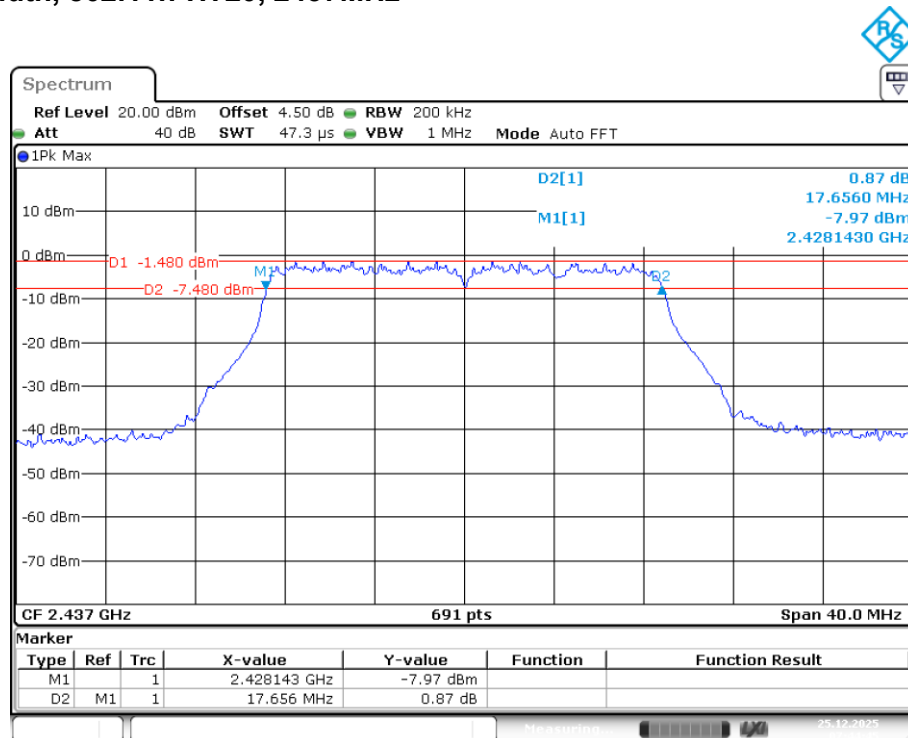
Date: 25.DEC.2025 07:40:24

6dB Bandwidth, 802.11g, 2462MHz


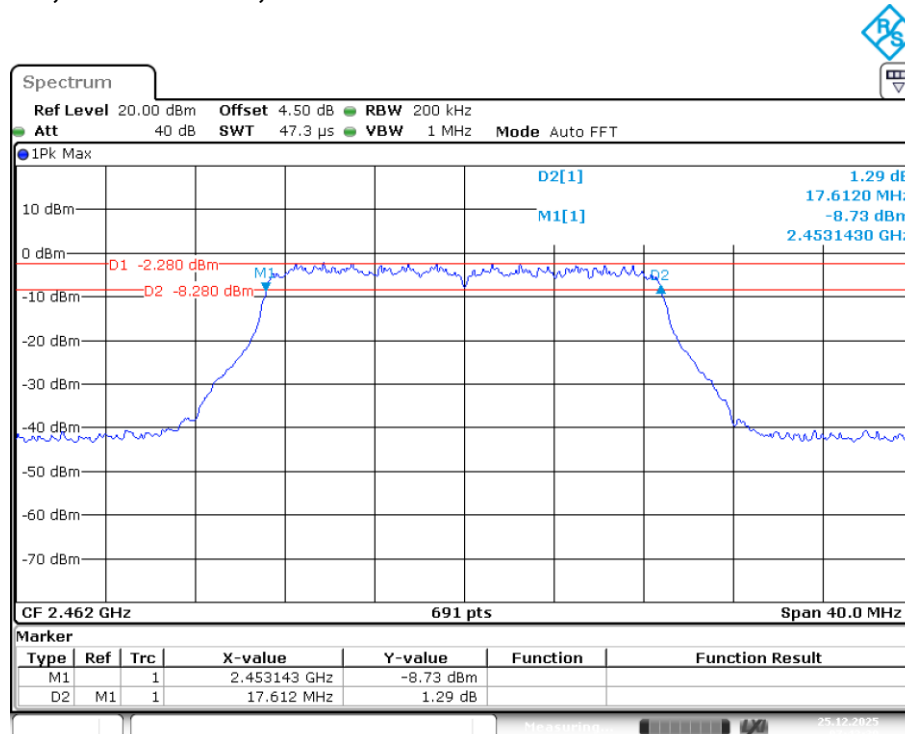
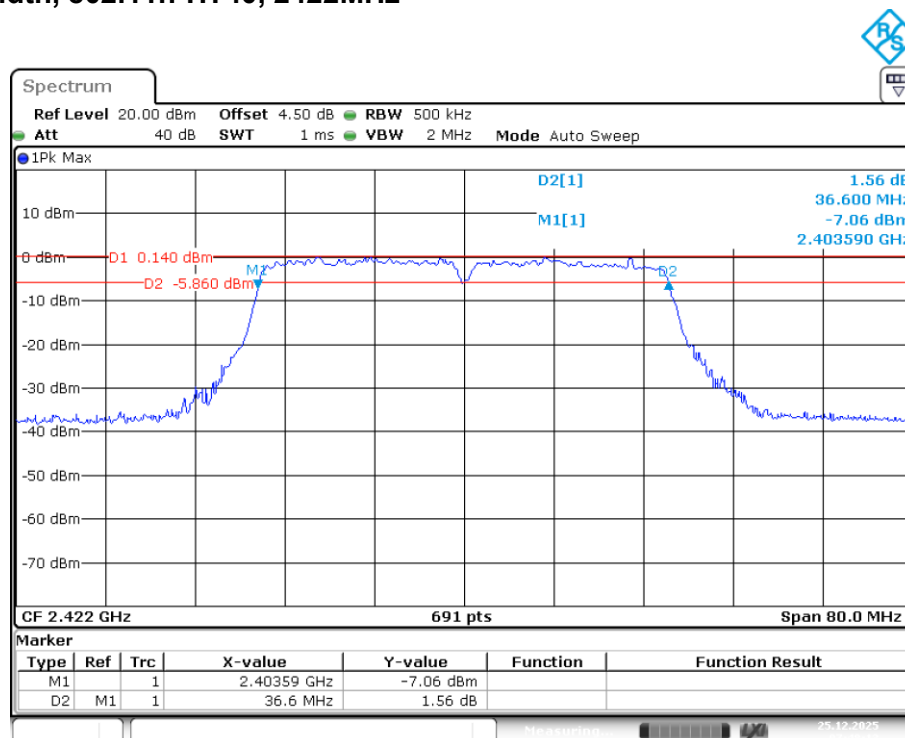
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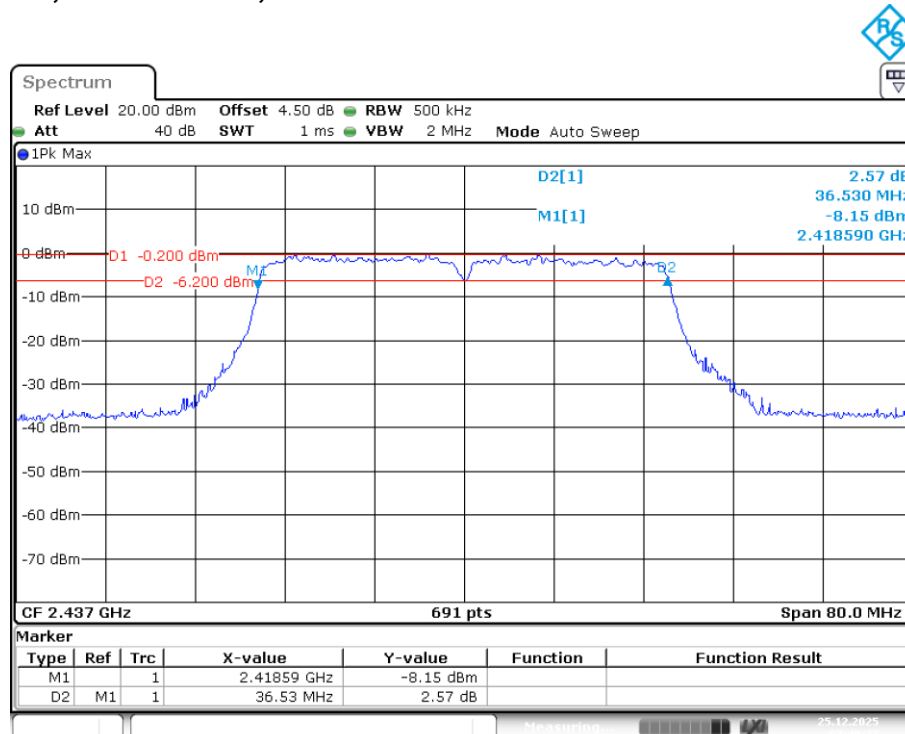
6dB Bandwidth, 802.11n-HT20, 2412MHz


Date: 25.DEC.2025 07:46:04

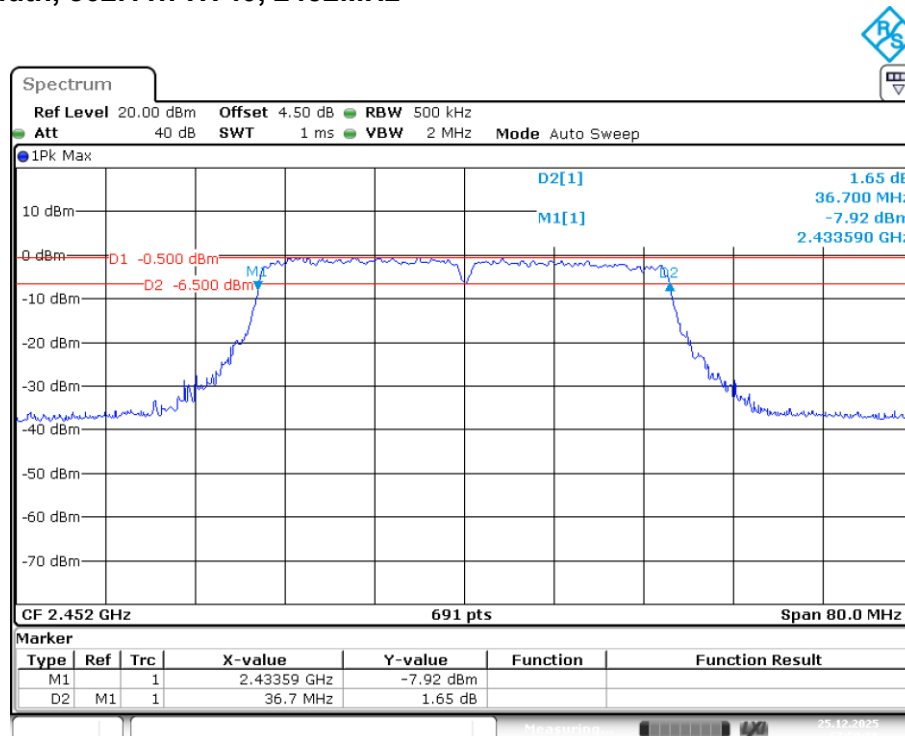
6dB Bandwidth, 802.11n-HT20, 2437MHz


Date: 25.DEC.2025 07:44:45

6dB Bandwidth, 802.11n-HT20, 2462MHz

6dB Bandwidth, 802.11n-HT40, 2422MHz


6dB Bandwidth, 802.11n-HT40, 2437MHz


Date: 25.DEC.2025 07:49:27

6dB Bandwidth, 802.11n-HT40, 2452MHz


Date: 25.DEC.2025 07:50:57

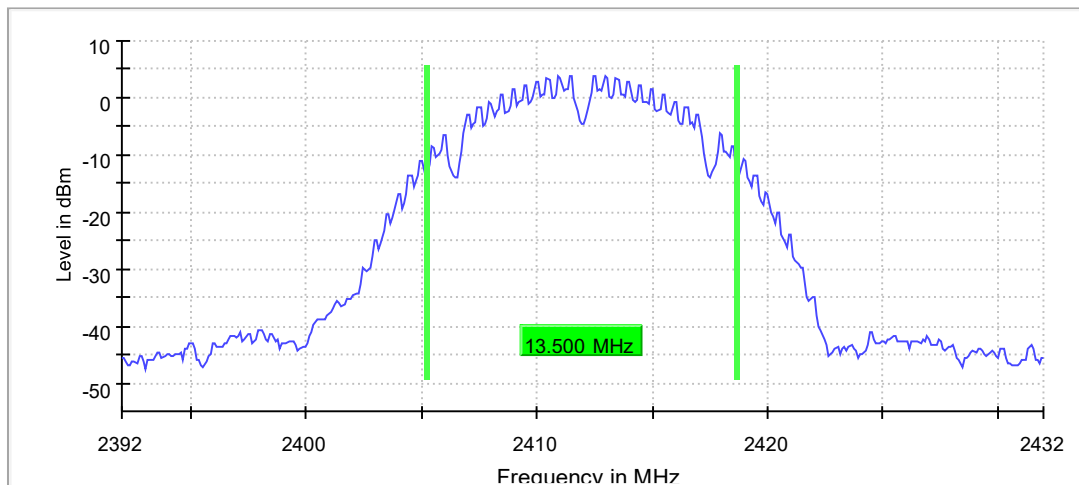
99% Occupied Channel Bandwidth, 802.11b, 2412MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2412.000000	13.500000	---	---	2405.250000	2418.750000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2412.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39200 GHz	2.39200 GHz
Stop Frequency	2.43200 GHz	2.43200 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
Sweeptime	47.266 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.11 dB	0.30 dB

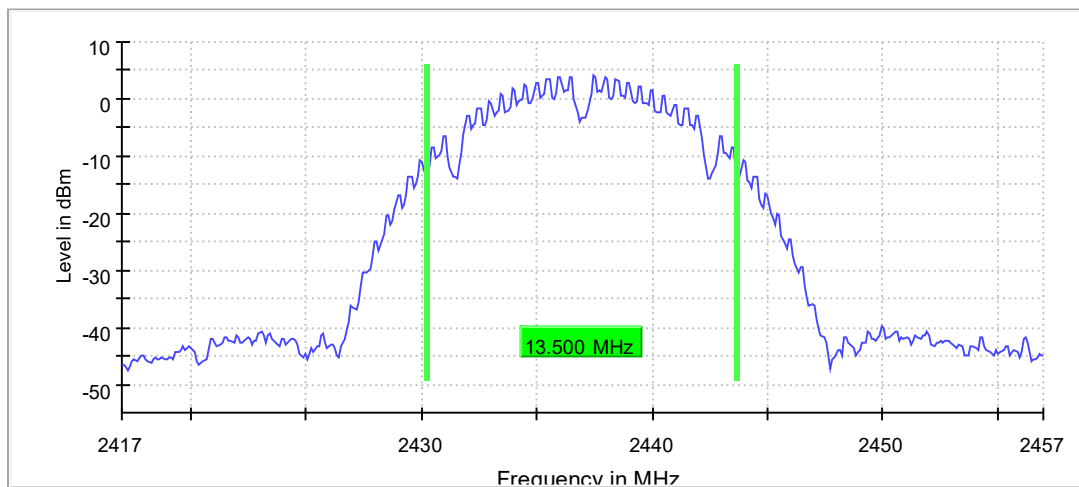
99% Occupied Channel Bandwidth, 802.11b, 2437MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	13.500000	---	---	2430.250000	2443.750000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2437.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.41700 GHz	2.41700 GHz
Stop Frequency	2.45700 GHz	2.45700 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
Sweeptime	47.266 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	7 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.06 dB	0.30 dB

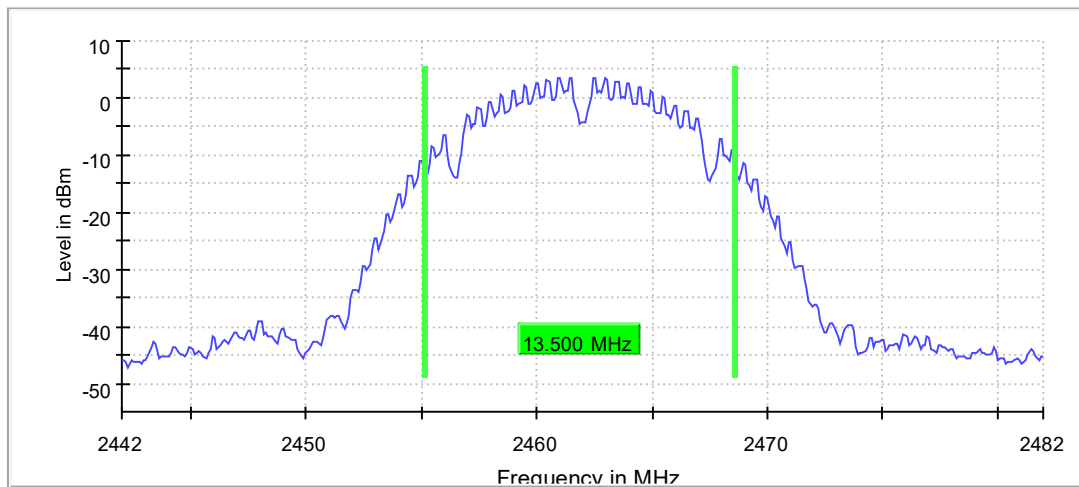
99% Occupied Channel Bandwidth, 802.11b, 2462MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	8.150000	0.500000	---	2457.425000	2465.575000

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2462.000000	3.5	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44200 GHz	2.44200 GHz
Stop Frequency	2.48200 GHz	2.48200 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
Sweeptime	47.266 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	7 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.14 dB	0.30 dB

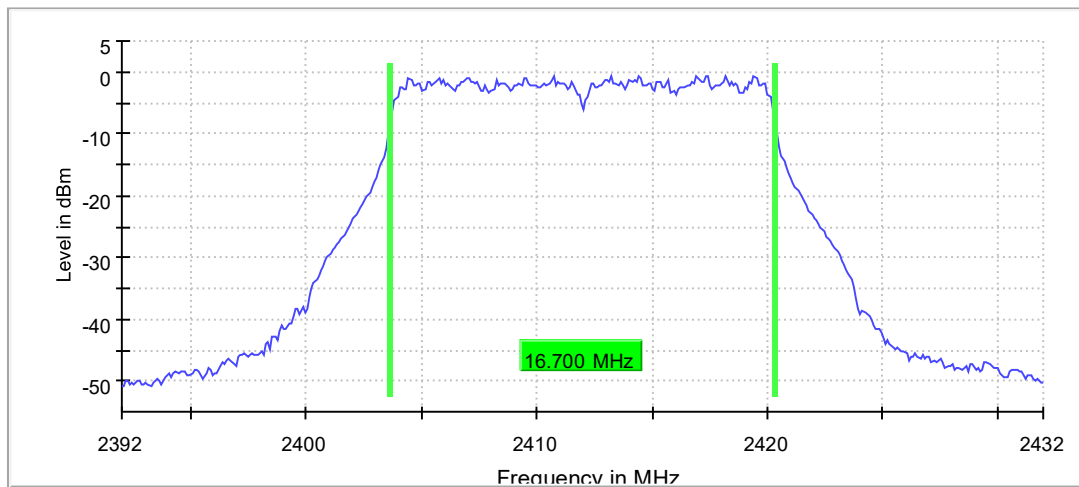
99% Occupied Channel Bandwidth, 802.11g, 2412MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2412.000000	16.700000	---	---	2403.650000	2420.350000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2412.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39200 GHz	2.39200 GHz
Stop Frequency	2.43200 GHz	2.43200 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
Sweeptime	47.266 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	39 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.02 dB	0.30 dB

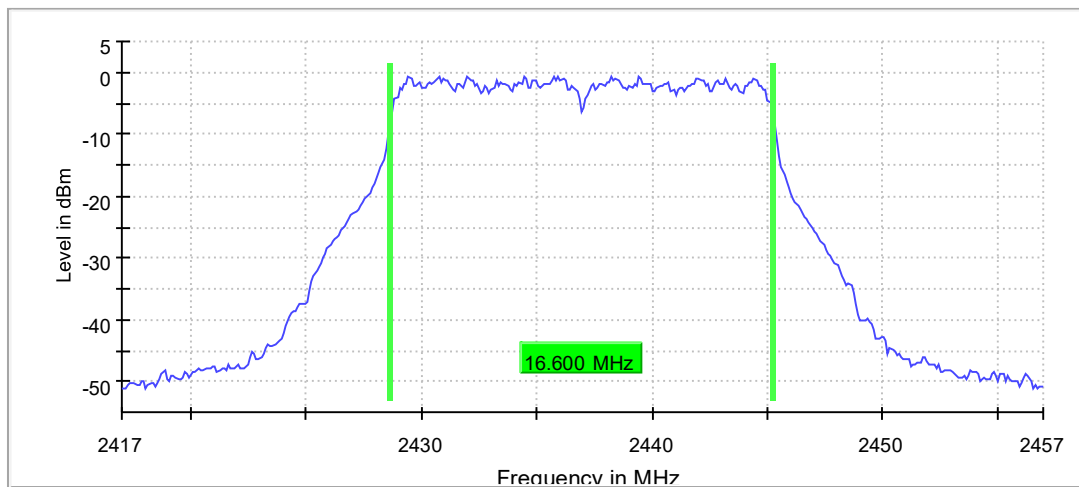
99% Occupied Channel Bandwidth, 802.11g, 2437MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	16.600000	---	---	2428.650000	2445.250000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2437.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.41700 GHz	2.41700 GHz
Stop Frequency	2.45700 GHz	2.45700 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
Sweeptime	47.266 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	33 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.23 dB	0.30 dB

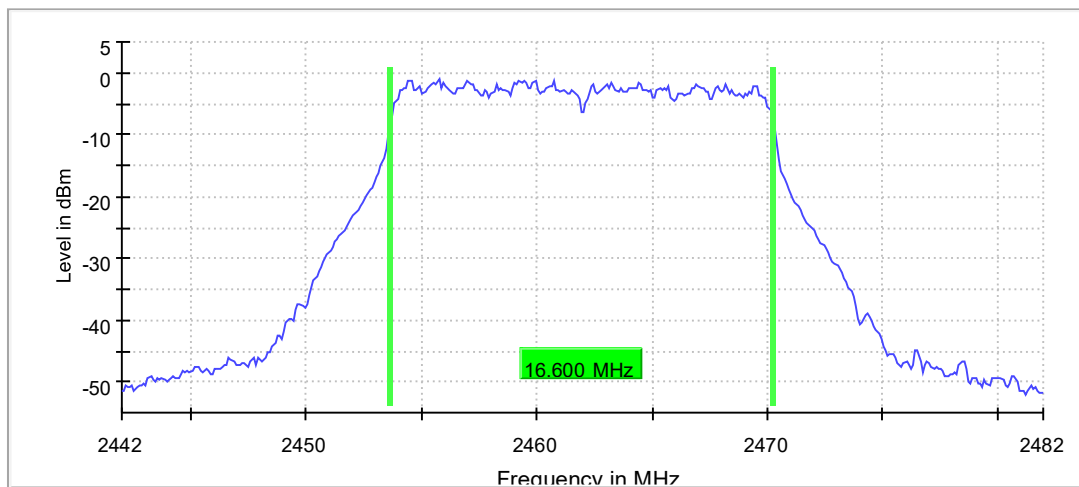
99% Occupied Channel Bandwidth, 802.11g, 2462MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	16.600000	---	---	2453.650000	2470.250000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2462.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44200 GHz	2.44200 GHz
Stop Frequency	2.48200 GHz	2.48200 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
Sweeptime	47.266 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	54 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.13 dB	0.30 dB

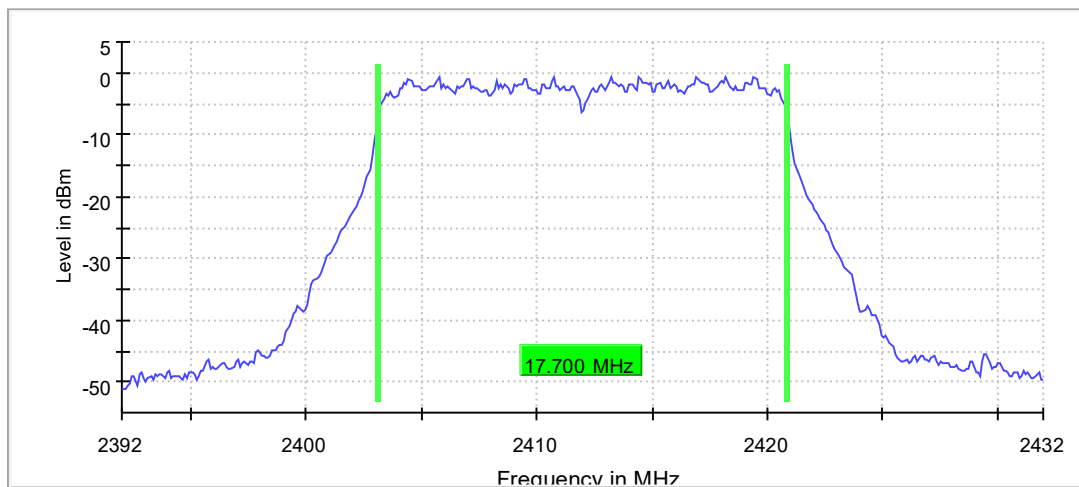
99% Occupied Channel Bandwidth, 802.11n-HT20, 2412MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2412.000000	17.700000	---	---	2403.150000	2420.850000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2412.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39200 GHz	2.39200 GHz
Stop Frequency	2.43200 GHz	2.43200 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
Sweeptime	47.266 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	30 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.13 dB	0.30 dB

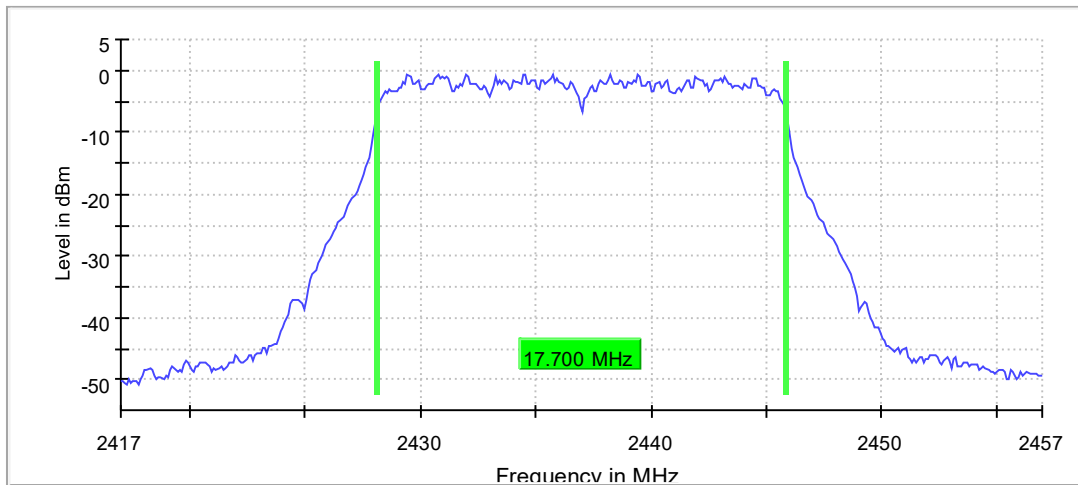
99% Occupied Channel Bandwidth, 802.11 n-HT20, 2437MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	17.700000	---	---	2428.150000	2445.850000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2437.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.41700 GHz	2.41700 GHz
Stop Frequency	2.45700 GHz	2.45700 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
Sweeptime	47.266 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	38 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.03 dB	0.30 dB

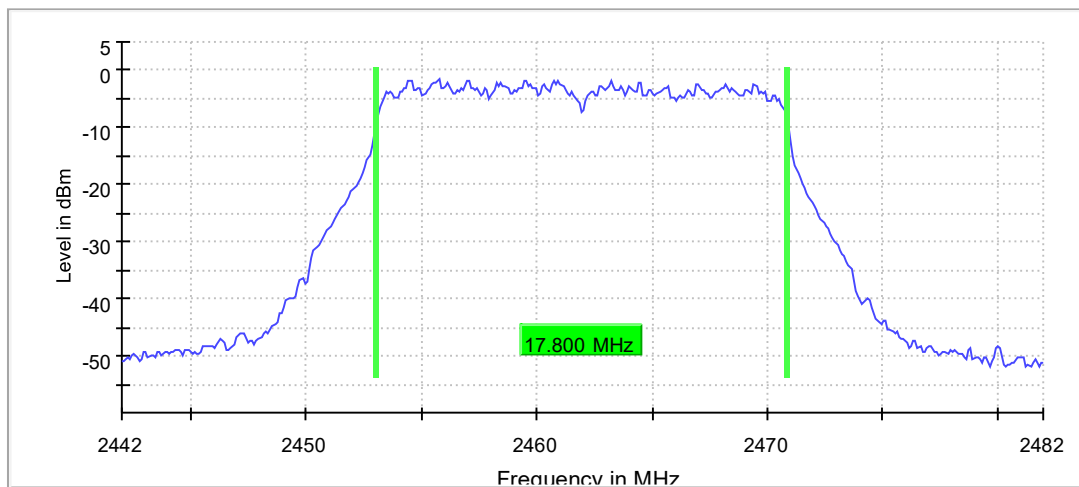
99% Occupied Channel Bandwidth, 802.11 n-HT20, 2462MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	17.800000	---	---	2453.050000	2470.850000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2462.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44200 GHz	2.44200 GHz
Stop Frequency	2.48200 GHz	2.48200 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
Sweeptime	47.266 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	38 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.22 dB	0.30 dB

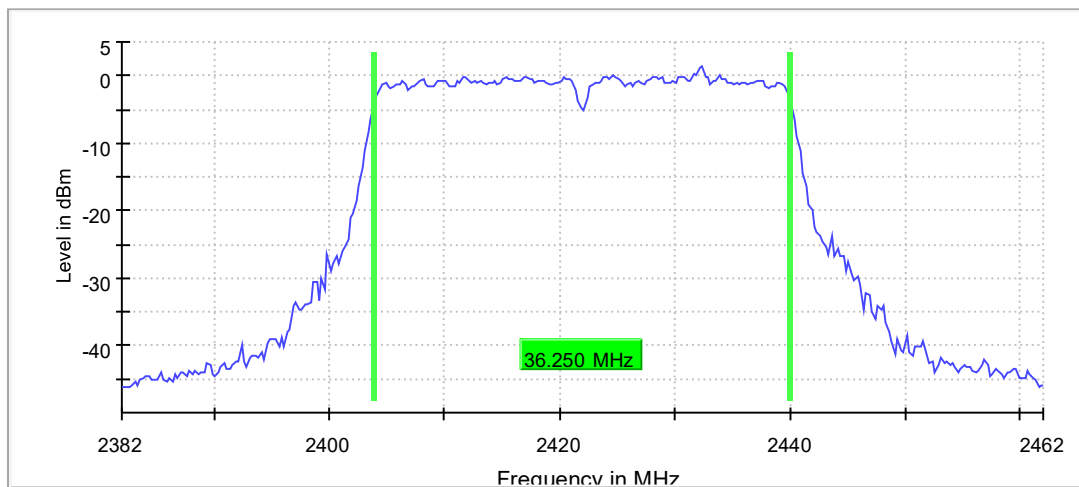
99% Occupied Channel Bandwidth, 802.11 n-HT40, 2422MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2422.000000	36.250000	---	---	2403.875000	2440.125000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2422.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.38200 GHz	2.38200 GHz
Stop Frequency	2.46200 GHz	2.46200 GHz
Span	80.000 MHz	80.000 MHz
RBW	500.000 kHz	>= 400.000 kHz
VBW	2.000 MHz	>= 1.500 MHz
SweepPoints	320	~ 320
SweepTime	1.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	26 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.08 dB	0.30 dB

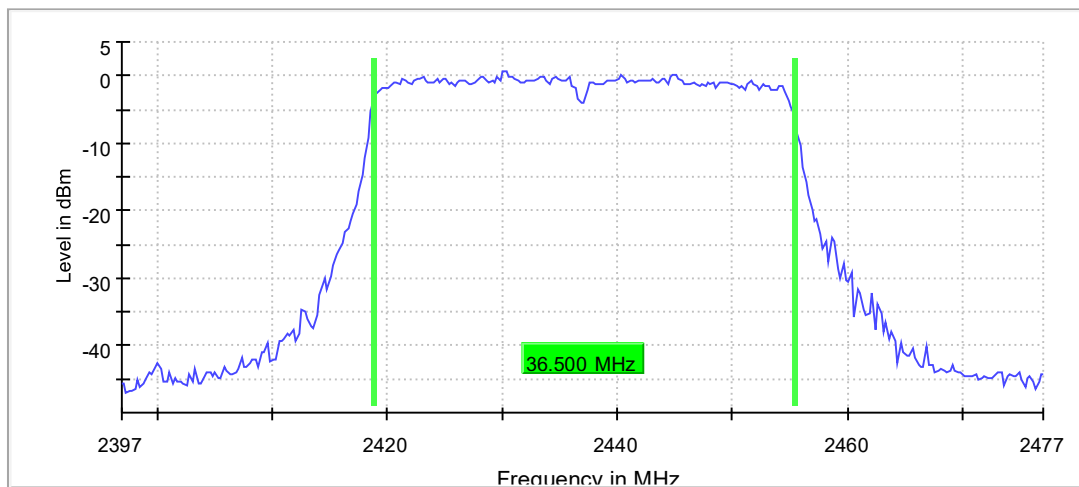
99% Occupied Channel Bandwidth, 802.11 n-HT40, 2437MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	36.500000	---	---	2418.875000	2455.375000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2437.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39700 GHz	2.39700 GHz
Stop Frequency	2.47700 GHz	2.47700 GHz
Span	80.000 MHz	80.000 MHz
RBW	500.000 kHz	>= 400.000 kHz
VBW	2.000 MHz	>= 1.500 MHz
SweepPoints	320	~ 320
SweepTime	1.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	29 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.10 dB	0.30 dB

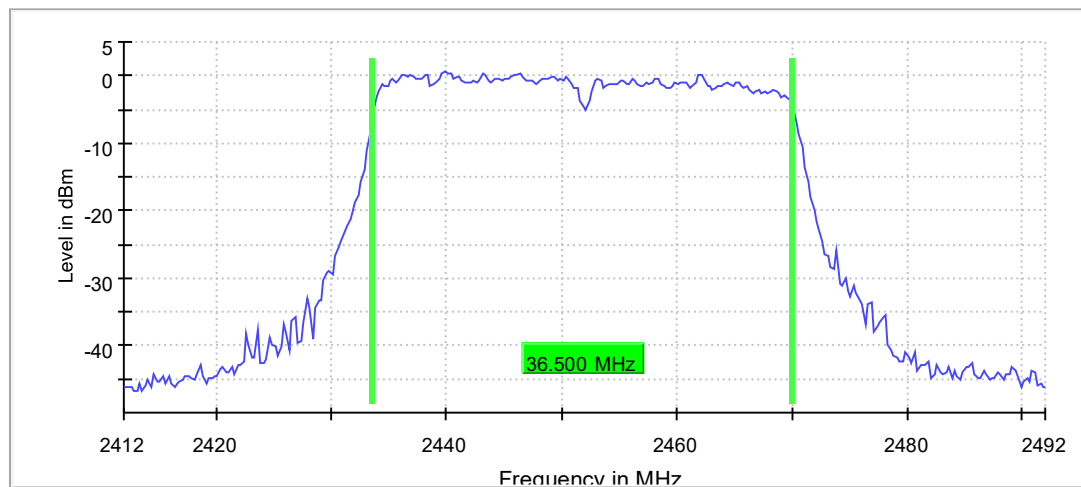
99% Occupied Channel Bandwidth, 802.11 n-HT40, 2452MHz

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2452.000000	36.500000	---	---	2433.625000	2470.125000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2452.000000	PASS

99 % Bandwidth


Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.41200 GHz	2.41200 GHz
Stop Frequency	2.49200 GHz	2.49200 GHz
Span	80.000 MHz	80.000 MHz
RBW	500.000 kHz	>= 400.000 kHz
VBW	2.000 MHz	>= 1.500 MHz
SweepPoints	320	~ 320
SweepTime	1.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	25 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.22 dB	0.30 dB

5.1.3 Output Power

RESULT:
Pass

Date of testing : 2025-12-25
 Ambient temperature : 20.5°C
 Relative humidity : 40.6%
 Atmospheric pressure : 101kPa
 Test requirement : FCC Part 15.247(b)(3)
 Test procedure : ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024
 Test voltage : AC 120V, 60Hz
 Test modes applied : A

Table 9: Peak Output Power

Test Mode	Frequency [MHz]	Peak Conducted Output Power [dBm]	Limit [dBm]
802.11b	2412	15.28	30
	2437	14.71	30
	2462	14.56	30
802.11g	2412	17.83	30
	2437	17.33	30
	2462	16.88	30
802.11n-HT20	2412	17.76	30
	2437	17.04	30
	2462	16.23	30
802.11n-HT40	2422	17.83	30
	2437	17.43	30
	2452	17.38	30

Table 10: Average Output Power

Test Mode	Frequency [MHz]	Average Conducted Output Power [dBm]	Limit [dBm]
802.11b	2412	12.47	30
	2437	12.49	30
	2462	12.11	30
802.11g	2412	10.52	30
	2437	10.49	30
	2462	9.71	30
802.11n-HT20	2412	10.53	30
	2437	10.46	30
	2462	9.22	30
802.11n-HT40	2422	10.68	30
	2437	10.50	30
	2452	10.44	30

Note:

1. The cable loss is taken into account in results.
2. EIRP=Conducted Output Power + Antenna Gain (1.09dBi), which is far below the 4 W (36dBm).

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5.1.4 Power Spectral Density

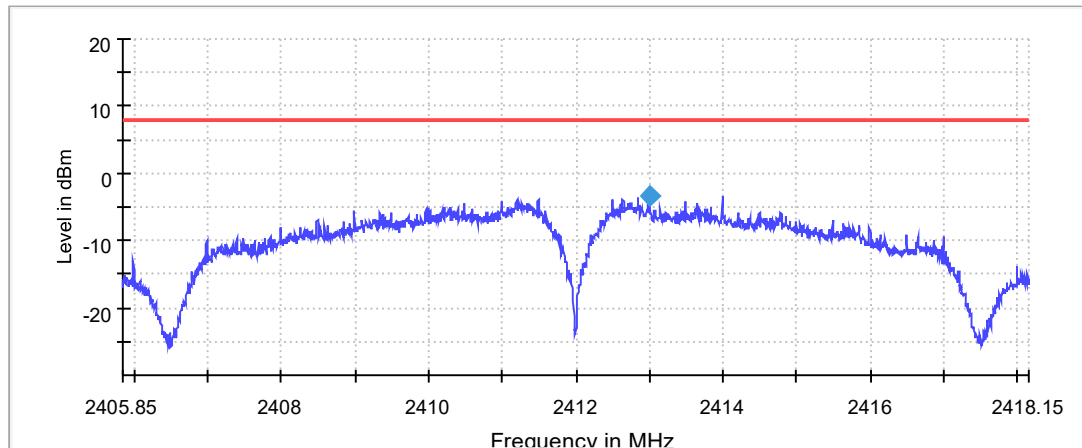
RESULT:**Pass**

Date of testing	:	2025-12-25
Ambient temperature	:	20.5°C
Relative humidity	:	40.4%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(e)
Test procedure	:	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	A

Power Spectral Density, 802.11b, 2412MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2412.000000	2412.992500	-3.314	8.0	PASS

Peak Power Spectral Density

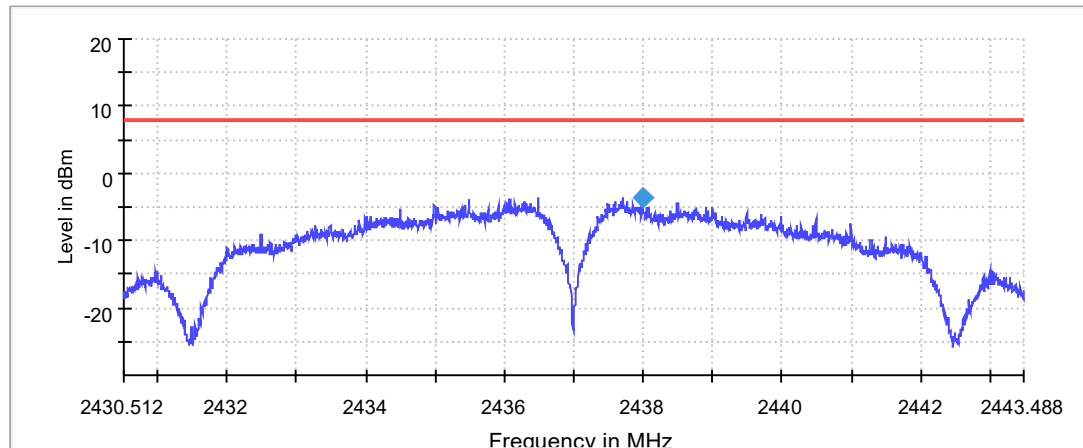

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40585 GHz	2.40585 GHz
Stop Frequency	2.41815 GHz	2.41815 GHz
Span	12.300 MHz	12.300 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	2460	~ 2460
SweepTime	12.300 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	93 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.00 dB	0.50 dB

Power Spectral Density, 802.11b, 2437MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2437.000000	2437.990000	-3.492	8.0	PASS

Peak Power Spectral Density



— Limit — Sum Level ◆ PSD

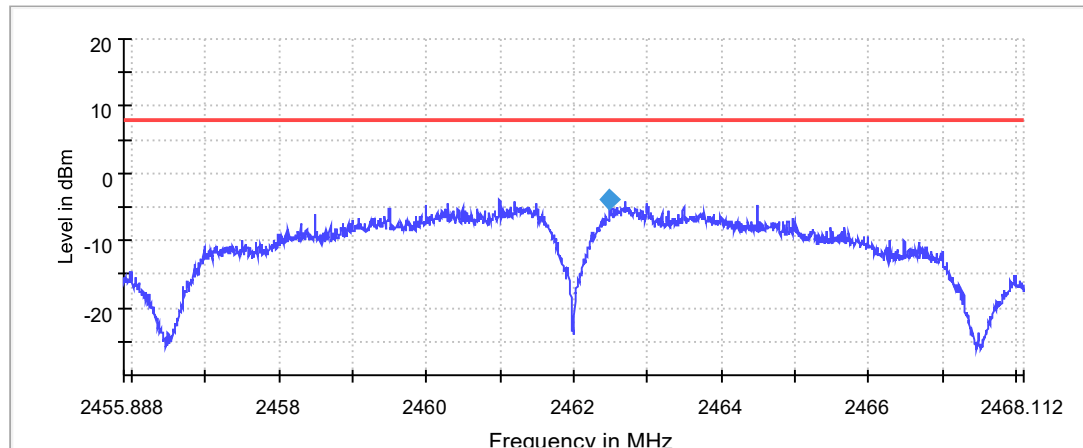
Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43051 GHz	2.43051 GHz
Stop Frequency	2.44349 GHz	2.44349 GHz
Span	12.975 MHz	12.975 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	2595	~ 2595
Sweeptime	13.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	101 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.36 dB	0.50 dB

Power Spectral Density, 802.11b, 2462MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2462.000000	2462.490000	-3.808	8.0	PASS

Peak Power Spectral Density



Limit Sum Level PSD

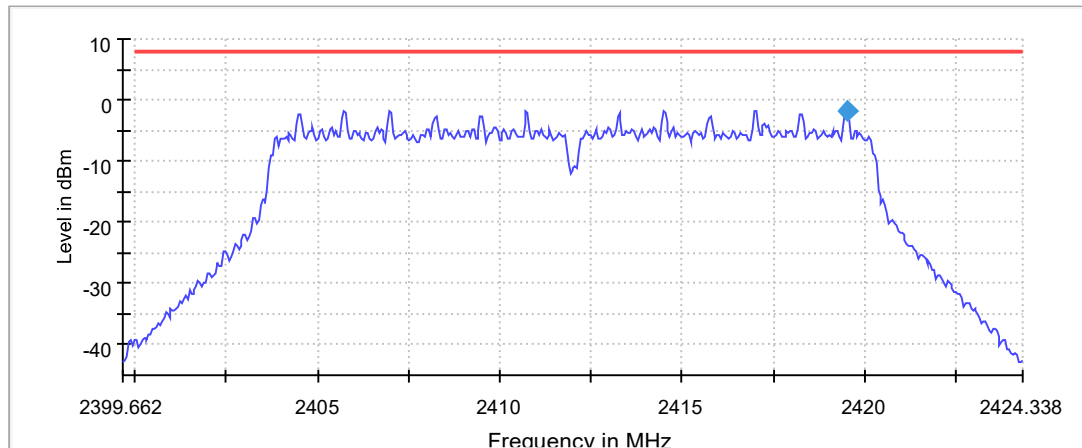
Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.45589 GHz	2.45589 GHz
Stop Frequency	2.46811 GHz	2.46811 GHz
Span	12.225 MHz	12.225 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	2445	~ 2445
Sweeptime	12.300 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	110 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.00 dB	0.50 dB

Power Spectral Density, 802.11g, 2412MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2412.000000	2419.517384	-1.660	8.0	PASS

Peak Power Spectral Density



— Limit — Sum Level ◆ PSD

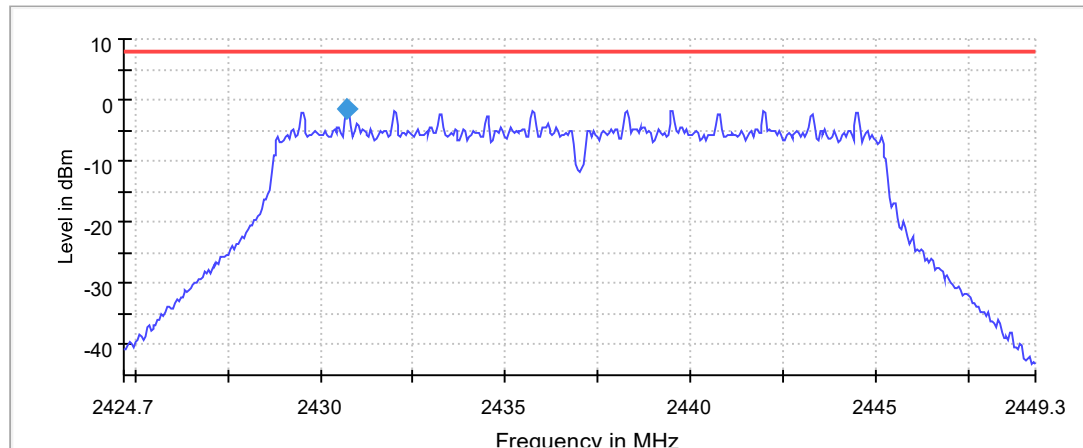
Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39966 GHz	2.39966 GHz
Stop Frequency	2.42434 GHz	2.42434 GHz
Span	24.675 MHz	24.675 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	494	~ 494
Sweeptime	1.040 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	17 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.39 dB	0.50 dB

Power Spectral Density, 802.11g, 2437MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2437.000000	2430.725000	-1.428	8.0	PASS

Peak Power Spectral Density



— Limit — Sum Level ◆ PSD

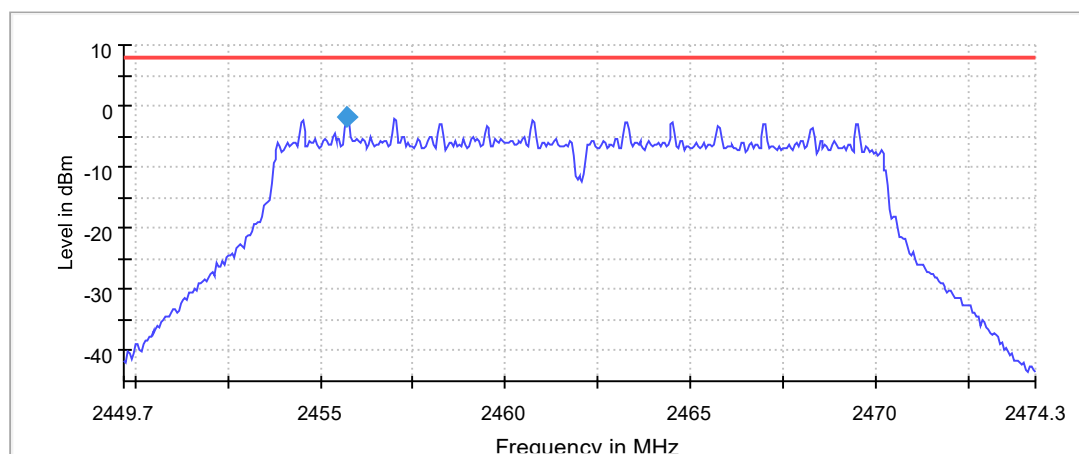
Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.42470 GHz	2.42470 GHz
Stop Frequency	2.44930 GHz	2.44930 GHz
Span	24.600 MHz	24.600 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	492	~ 492
Sweeptime	1.030 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	21 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.13 dB	0.50 dB

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Power Spectral Density, 802.11g, 2462MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2462.000000	2455.725000	-1.900	8.0	PASS

Peak Power Spectral Density

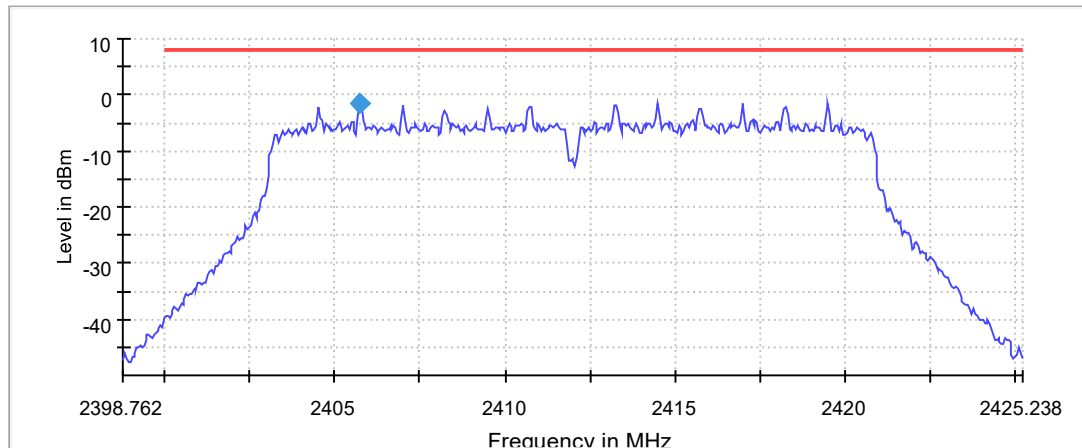

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44970 GHz	2.44970 GHz
Stop Frequency	2.47430 GHz	2.47430 GHz
Span	24.600 MHz	24.600 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	492	~ 492
Sweeptime	1.030 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	20 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.19 dB	0.50 dB

Power Spectral Density, 802.11n-HT20, 2412MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2412.000000	2405.730920	-1.659	8.0	PASS

Peak Power Spectral Density

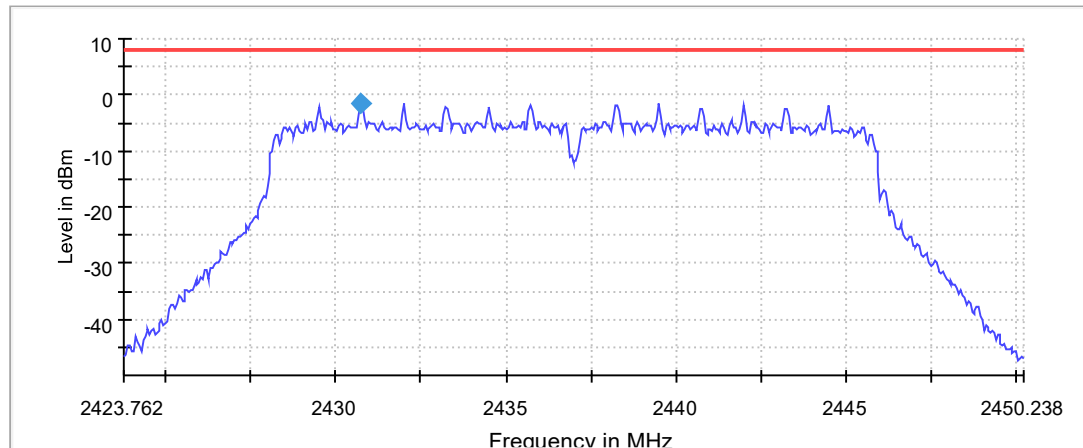

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39876 GHz	2.39876 GHz
Stop Frequency	2.42524 GHz	2.42524 GHz
Span	26.475 MHz	26.475 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	530	~ 530
Sweeptime	1.010 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	19 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.46 dB	0.50 dB

Power Spectral Density, 802.11n-HT20, 2437MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2437.000000	2430.730920	-1.450	8.0	PASS

Peak Power Spectral Density

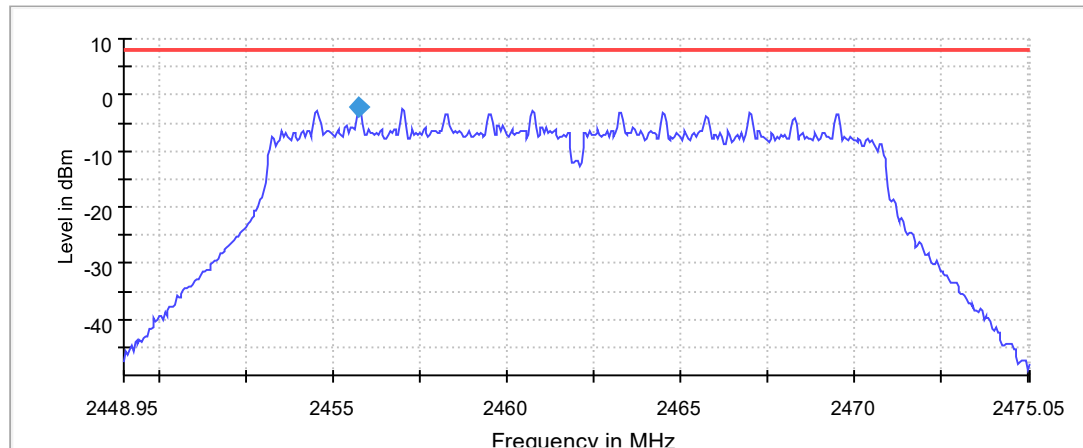

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.42376 GHz	2.42376 GHz
Stop Frequency	2.45024 GHz	2.45024 GHz
Span	26.475 MHz	26.475 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	530	~ 530
Sweeptime	1.010 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	16 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.43 dB	0.50 dB

Power Spectral Density, 802.11n-HT20, 2462MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2462.000000	2455.725000	-2.313	8.0	PASS

Peak Power Spectral Density



— Limit — Sum Level ◆ PSD

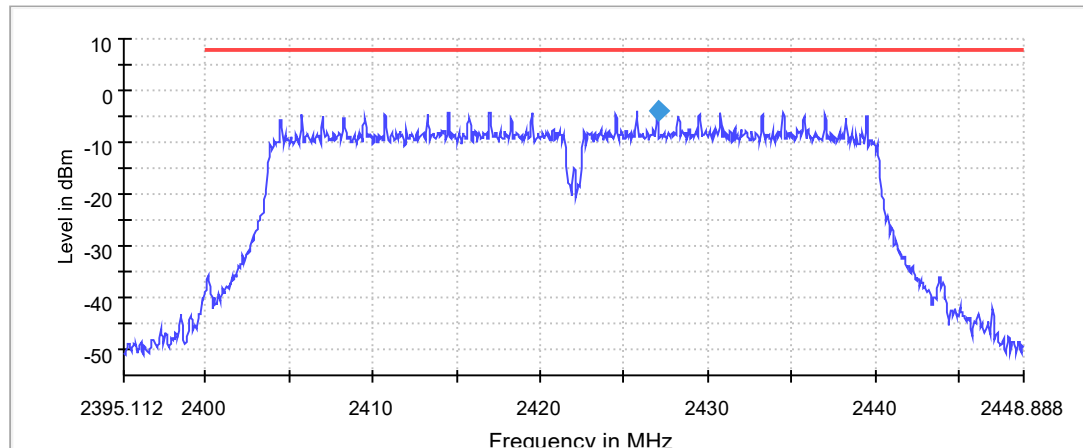
Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44895 GHz	2.44895 GHz
Stop Frequency	2.47505 GHz	2.47505 GHz
Span	26.100 MHz	26.100 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	522	~ 522
Sweeptime	1.100 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	28 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.26 dB	0.50 dB

Power Spectral Density, 802.11n-HT20, 2422MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2422.000000	2427.022665	-4.045	8.0	PASS

Peak Power Spectral Density

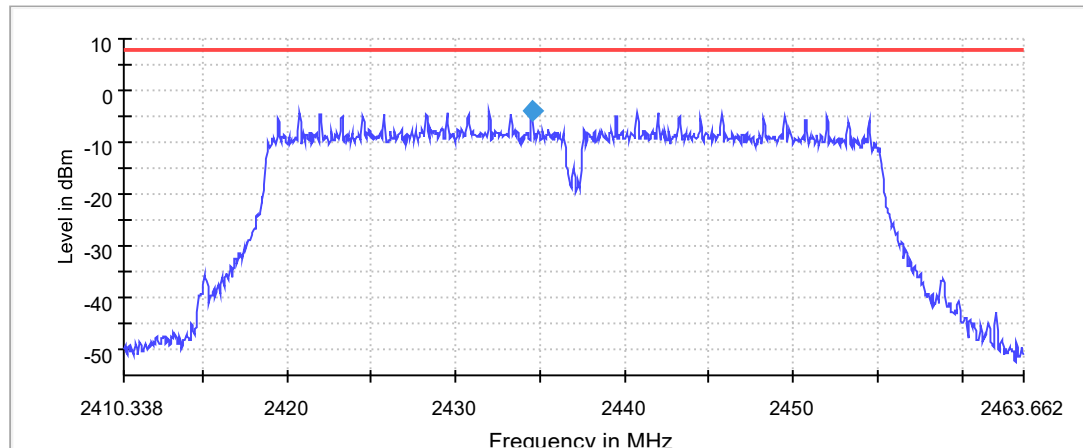

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39511 GHz	2.39511 GHz
Stop Frequency	2.44889 GHz	2.44889 GHz
Span	53.775 MHz	53.775 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1076	~ 1076
Sweeptime	1.080 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	15 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.28 dB	0.50 dB

Power Spectral Density, 802.11n-HT20, 2437MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2437.000000	2434.523839	-4.074	8.0	PASS

Peak Power Spectral Density

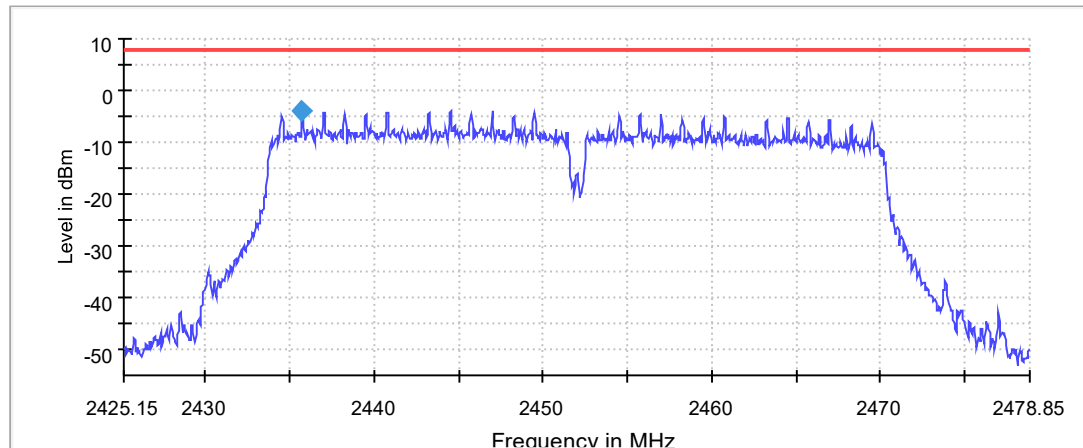

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.41034 GHz	2.41034 GHz
Stop Frequency	2.46366 GHz	2.46366 GHz
Span	53.325 MHz	53.325 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1066	~ 1066
Sweeptime	1.070 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	19 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.24 dB	0.50 dB

Power Spectral Density, 802.11n-HT20, 2462MHz

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2452.000000	2435.725000	-3.992	8.0	PASS

Peak Power Spectral Density



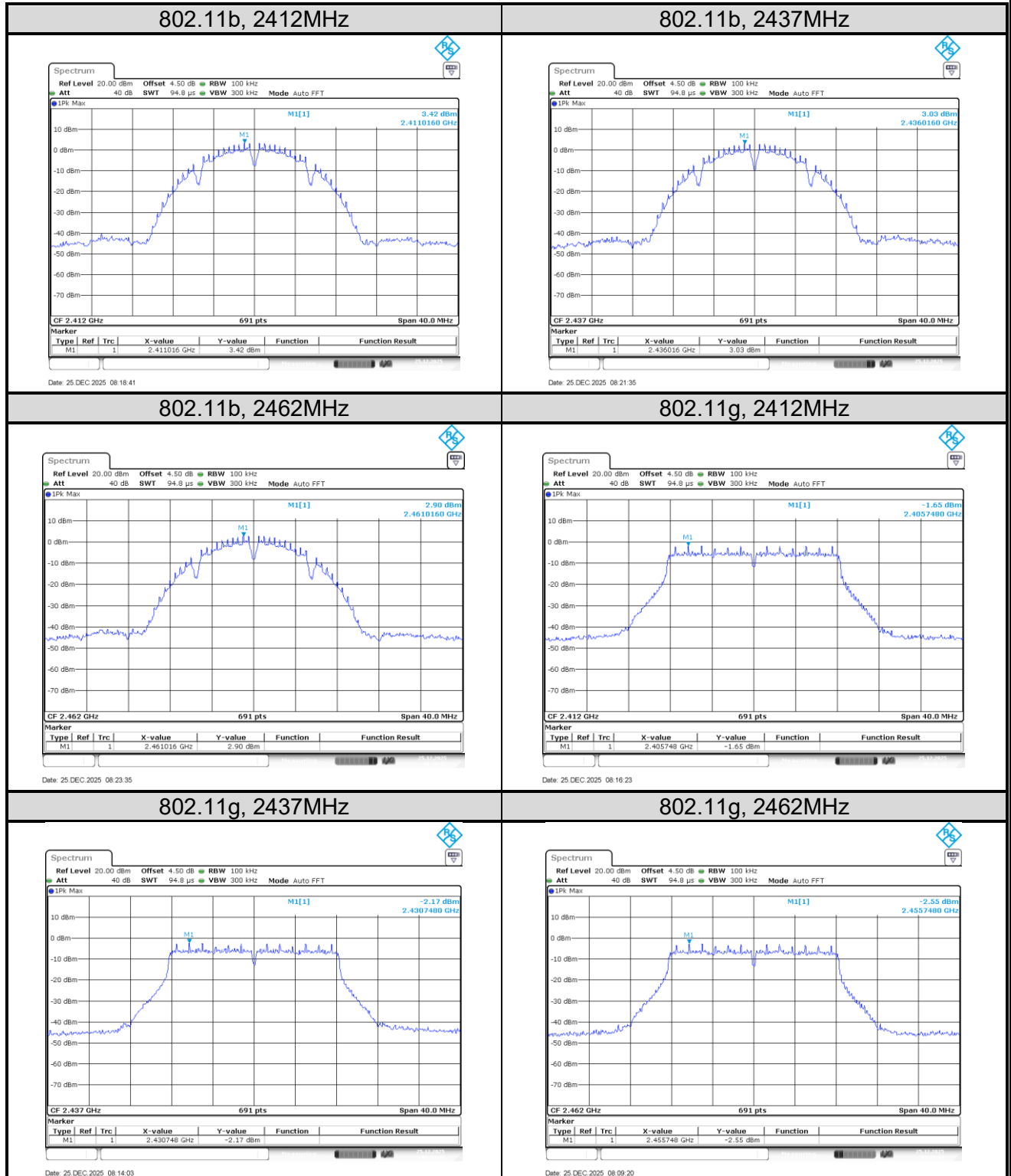
— Limit — Sum Level ◆ PSD

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.42515 GHz	2.42515 GHz
Stop Frequency	2.47885 GHz	2.47885 GHz
Span	53.700 MHz	53.700 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1074	~ 1074
Sweeptime	1.080 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	16 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.45 dB	0.50 dB

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Page 47 of 90**5.1.5 Conducted Band Edge and out-of Band Emissions****RESULT:****Pass**

Date of testing	:	2025-12-25
Ambient temperature	:	20.5°C
Relative humidity	:	40.6%
Atmospheric pressure	:	101kPa
Test requirement	:	FCC Part 15.247(d)
Test procedure	:	ANSI C63.10-2020+Cor. 1-2023+C63.10a- 2024+Errata to C63.10a-2024
Test voltage	:	AC 120V, 60Hz
Test modes applied	:	A

Figure 1: Reference level


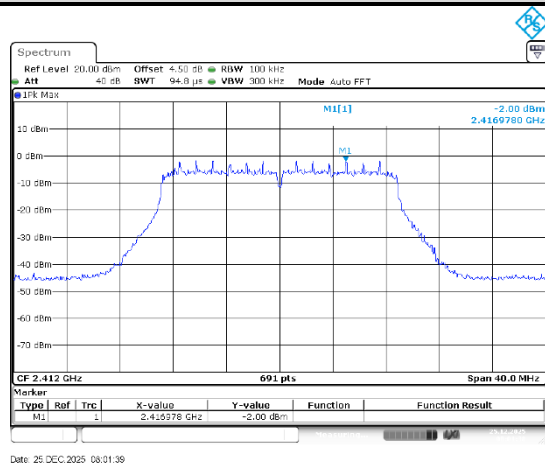
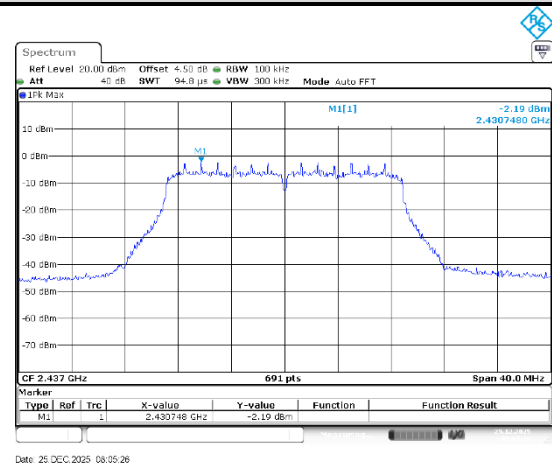
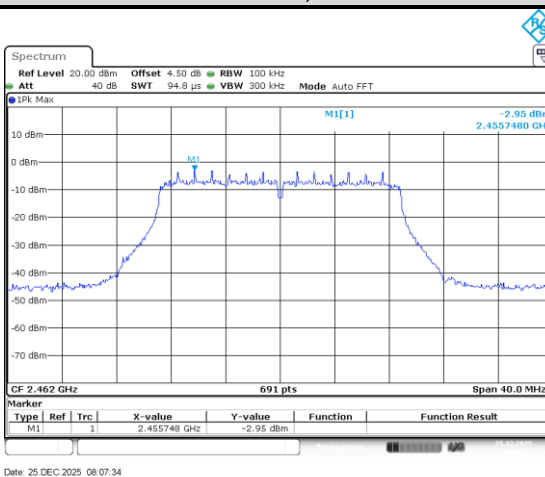
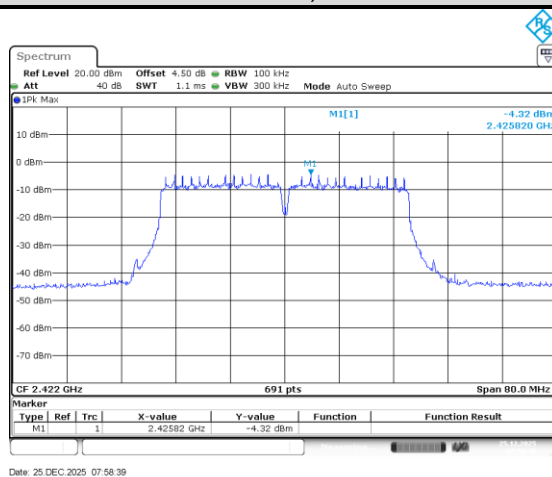
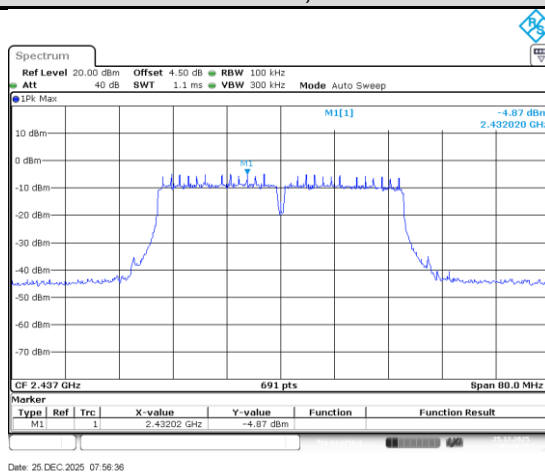
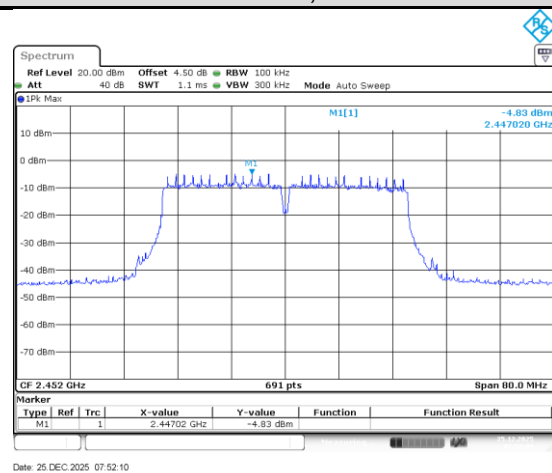
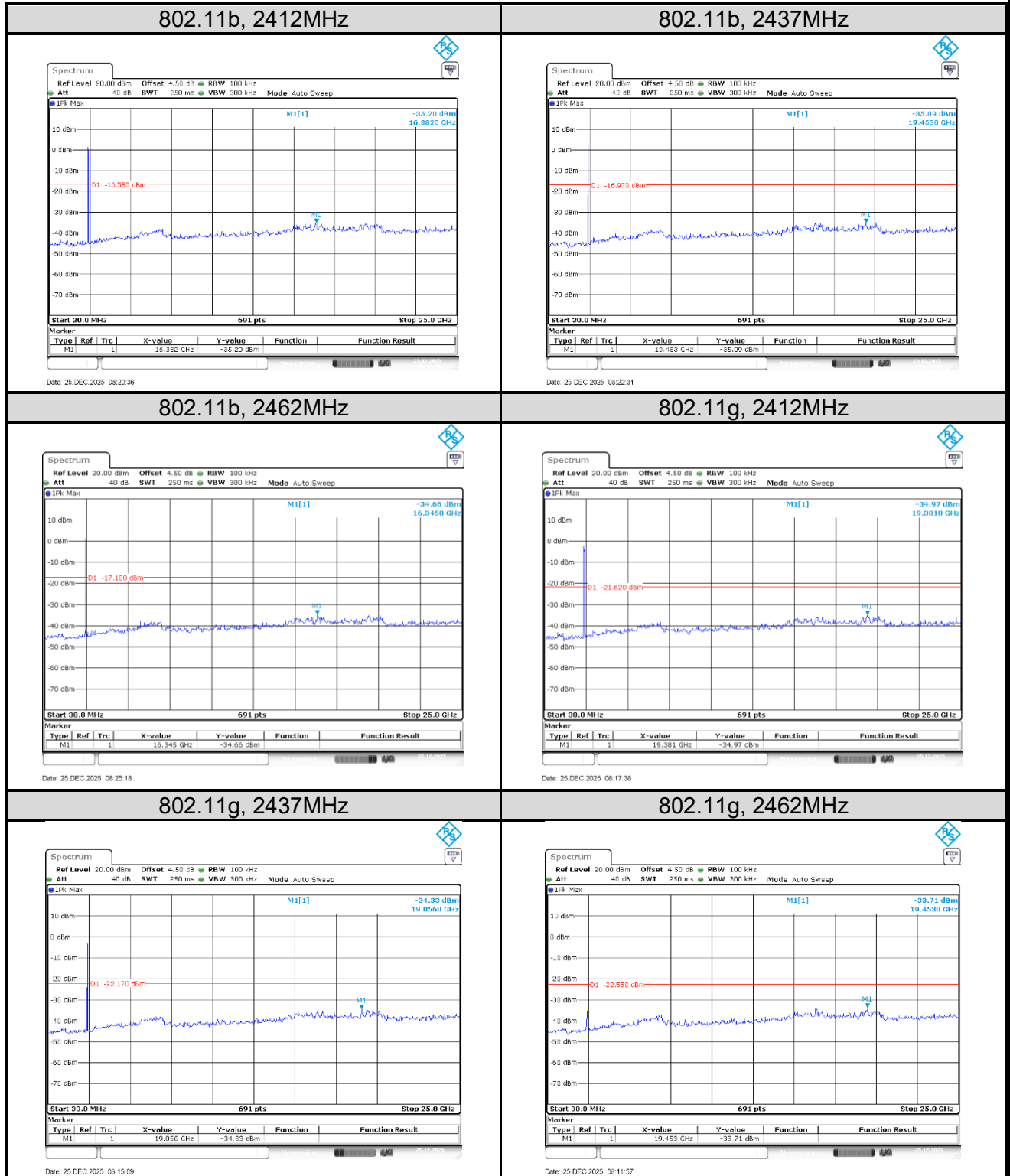
802.11n-HT20, 2412MHz

802.11n-HT20, 2437MHz

802.11n-HT20, 2462MHz

802.11n-HT40, 2422MHz

802.11n-HT40, 2437MHz

802.11n-HT40, 2452MHz


Figure 2: Conducted Spurious Emission


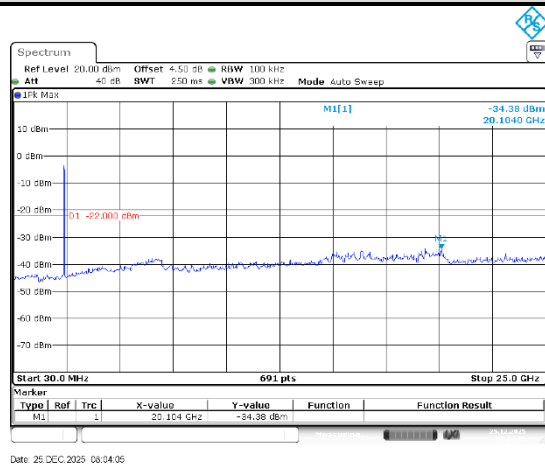
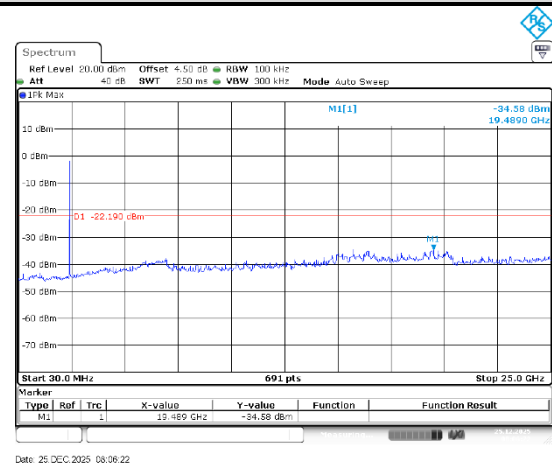
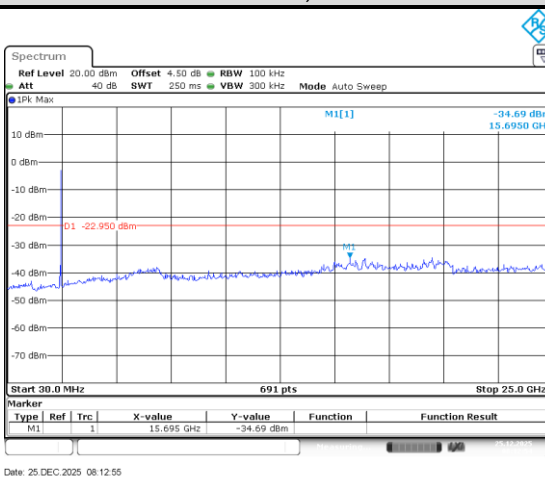
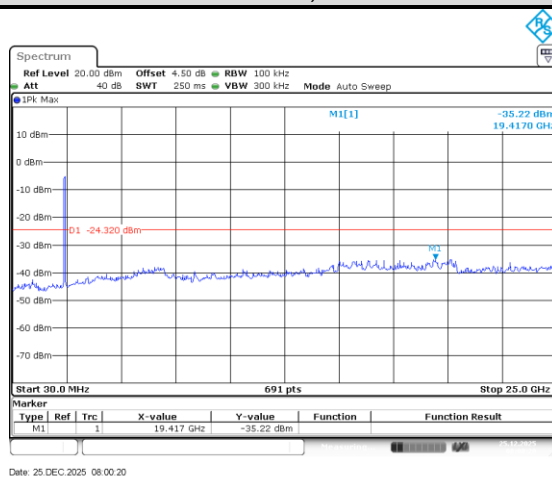
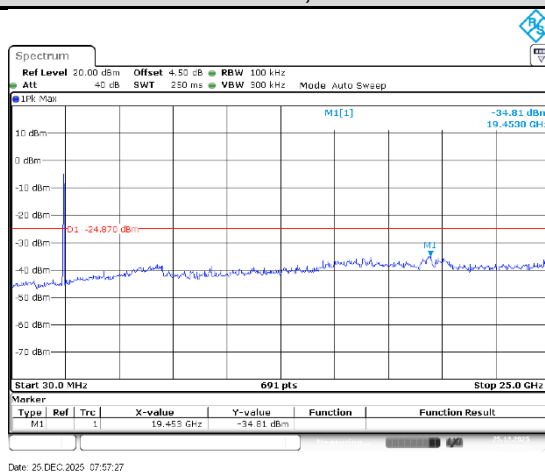
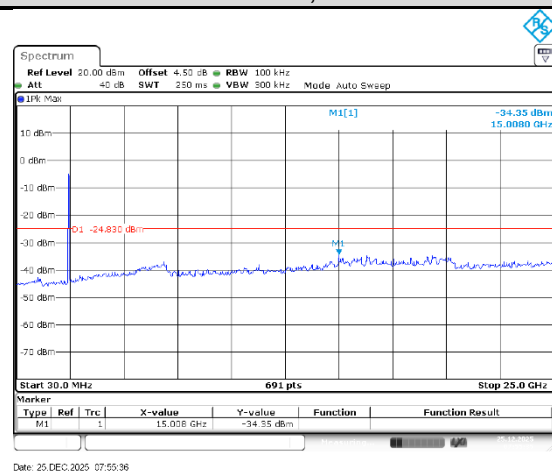
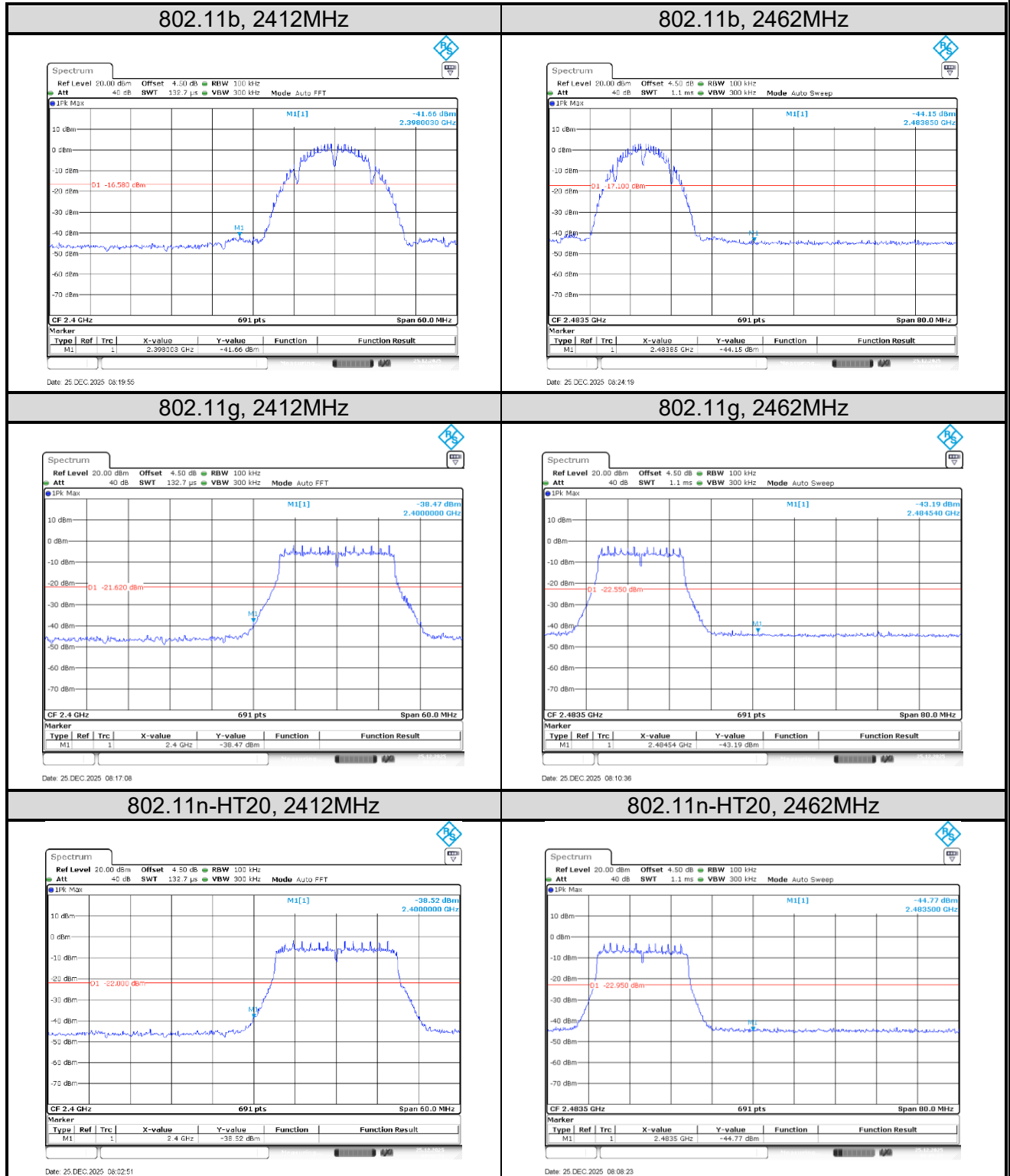
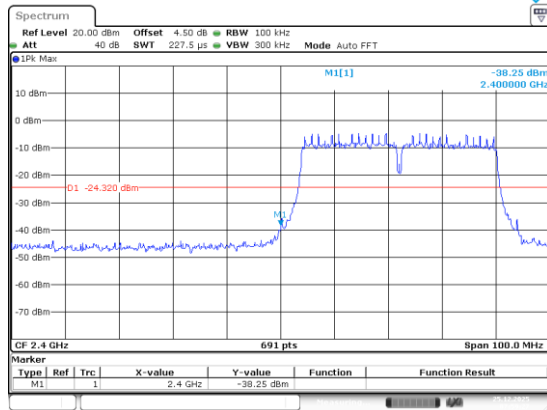
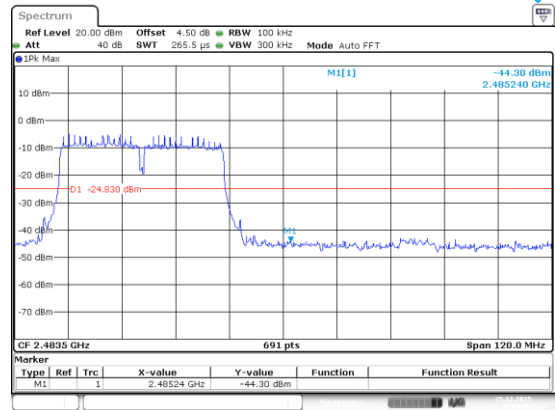
802.11n-HT20, 2412MHz

802.11n-HT20, 2437MHz

802.11n-HT20, 2462MHz

802.11n-HT40, 2422MHz

802.11n-HT40, 2437MHz

802.11n-HT40, 2452MHz


Figure 3: Conducted Band Edge


802.11n-HT40, 2422MHz



802.11n-HT40, 2452MHz



5.2 Emission in the Frequency Range up to 30MHz

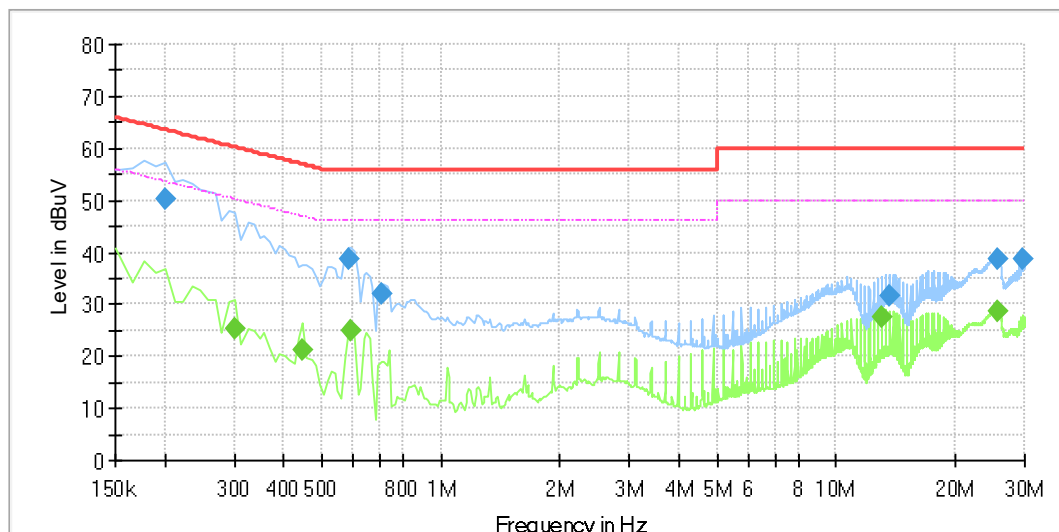
5.2.1 Conducted Emission

RESULT:

Pass

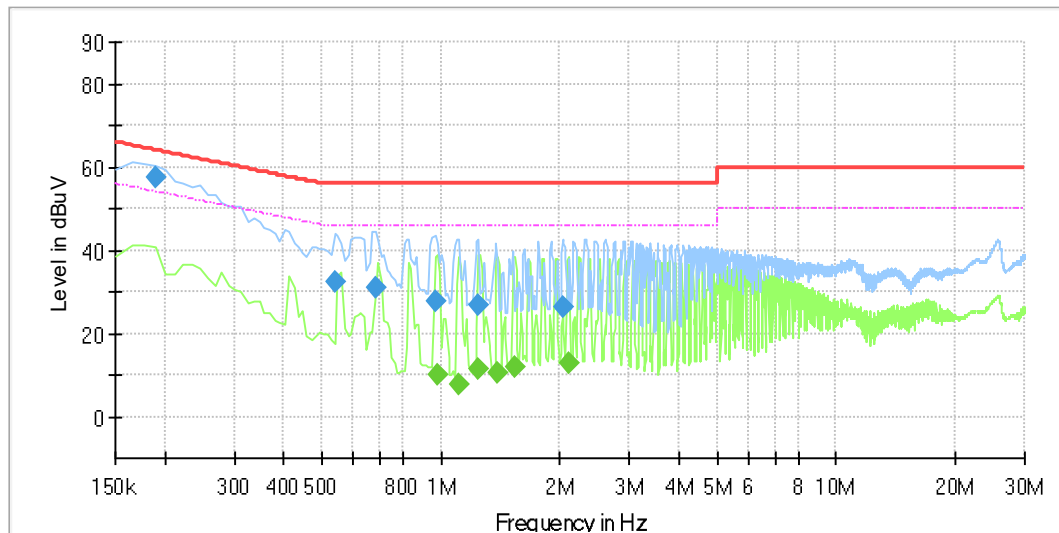
Date of testing	: 2026-01-20
Ambient temperature	: 20.5°C
Relative humidity	: 40.6%
Atmospheric pressure	: 101kPa
Test requirement	: FCC Part 15.207 (a)
Test procedure	: KDB 558074 D01v05r02 ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024
Test voltage	: AC 120 V, 60 Hz
Test modes applied	: A

Figure 4: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, L.



Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.200625	50.26	---	63.59	13.33	1000.0	9.000	L1
0.301875	---	25.39	50.19	24.80	1000.0	9.000	L1
0.448125	---	21.33	46.91	25.58	1000.0	9.000	L1
0.583125	38.83	---	56.00	17.17	1000.0	9.000	L1
0.594375	---	25.00	46.00	21.00	1000.0	9.000	L1
0.706875	32.18	---	56.00	23.82	1000.0	9.000	L1
13.014375	---	27.65	50.00	22.35	1000.0	9.000	L1
13.599375	31.62	---	60.00	28.38	1000.0	9.000	L1
25.603125	38.79	---	60.00	21.21	1000.0	9.000	L1
25.603125	---	28.64	50.00	21.36	1000.0	9.000	L1
29.754375	38.61	---	60.00	21.39	1000.0	9.000	L1

Figure 5: Spectral Diagrams, Conducted Emission, 150 kHz – 30 MHz, N.

Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Band width (kHz)	Line
0.189375	57.42	---	64.06	6.65	1000.0	9.000	N
0.538125	32.45	---	56.00	23.55	1000.0	9.000	N
0.684375	30.89	---	56.00	25.11	1000.0	9.000	N
0.965625	27.59	---	56.00	28.41	1000.0	9.000	N
0.976875	---	10.08	46.00	35.92	1000.0	9.000	N
1.111875	---	7.58	46.00	38.42	1000.0	9.000	N
1.246875	---	11.47	46.00	34.53	1000.0	9.000	N
1.246875	26.95	---	56.00	29.05	1000.0	9.000	N
1.393125	---	10.41	46.00	35.59	1000.0	9.000	N
1.539375	---	11.64	46.00	34.36	1000.0	9.000	N
2.034375	26.23	---	56.00	29.77	1000.0	9.000	N
2.101875	---	12.69	46.00	33.31	1000.0	9.000	N

5.3 Emission in the Frequency Range above 30MHz

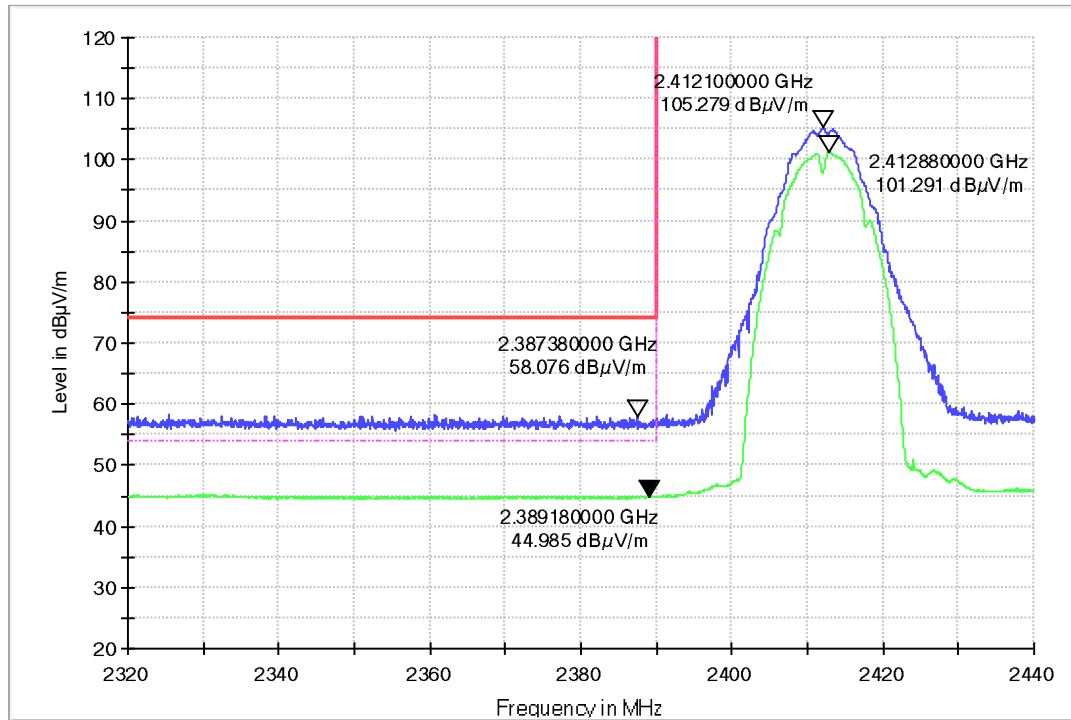
5.3.1 Radiated Band-Edge

RESULT:**Pass**

Date of testing	: 2025-12-24
Ambient temperature	: 21.2°C
Relative humidity	: 46.3%
Atmospheric pressure	: 101kPa
Test requirement	: FCC Part 15.247(d) FCC Part 15.205(a) FCC Part 15.209(a)
Test procedure	: ANSI C63.10-2020+Cor. 1-2023+C63.10a- 2024+Errata to C63.10a-2024
Test voltage	: AC120V, 60Hz
Test modes applied	: A

Figure 6: Radiated Band-Edge, 802.11b, 2412MHz, H

XXY- 2310~ 2410 BE 1-18GHz_HL050_FSV40_Pre-10-YUNFANG


Figure 7: Radiated Band-Edge, 802.11b, 2412MHz, V

XXY- 2310~ 2410 BE 1-18GHz_HL050_FSV40_Pre-10-YUNFANG

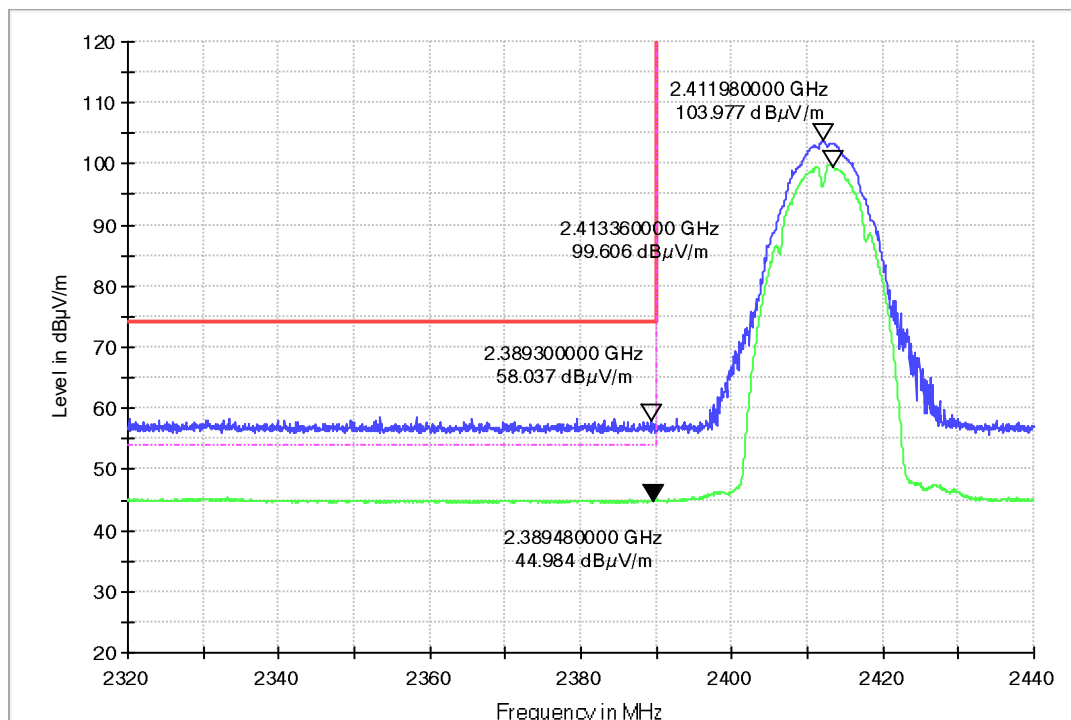
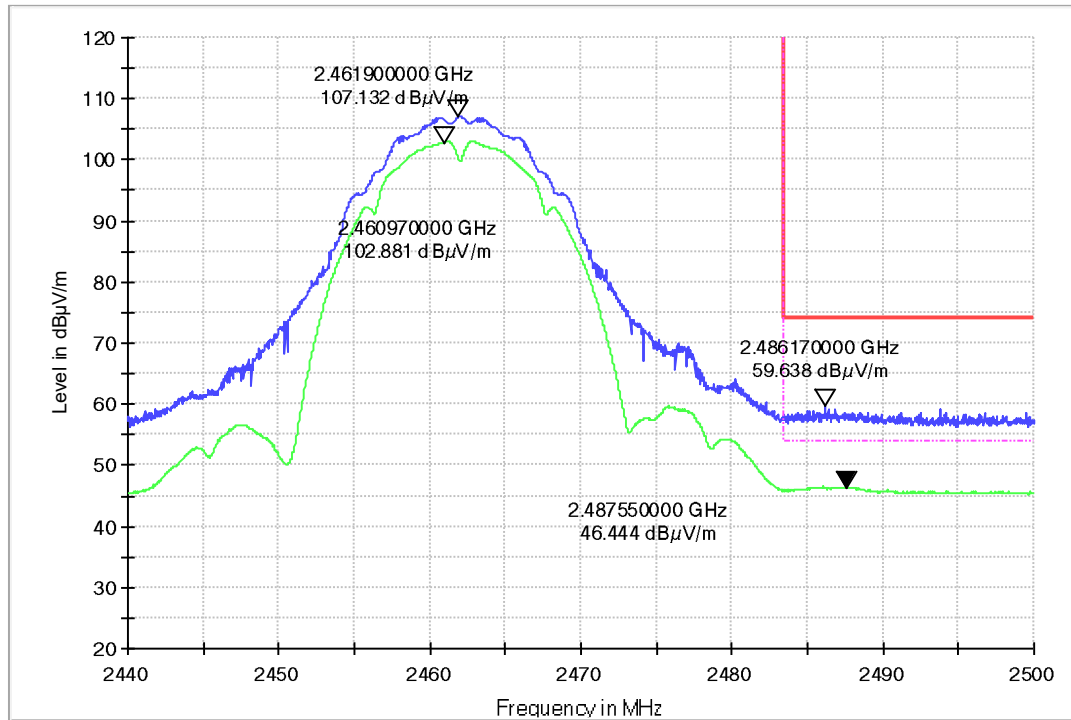


Figure 8: Radiated Band-Edge, 802.11b, 2462MHz, H

XXY-2470° 2500 BE_1-18GHz_HL050_FSV40_Pre-10-YUNFANG


Figure 9: Radiated Band-Edge, 802.11b, 2462MHz, V

XXY-2470° 2500 BE_1-18GHz_HL050_FSV40_Pre-10-YUNFANG

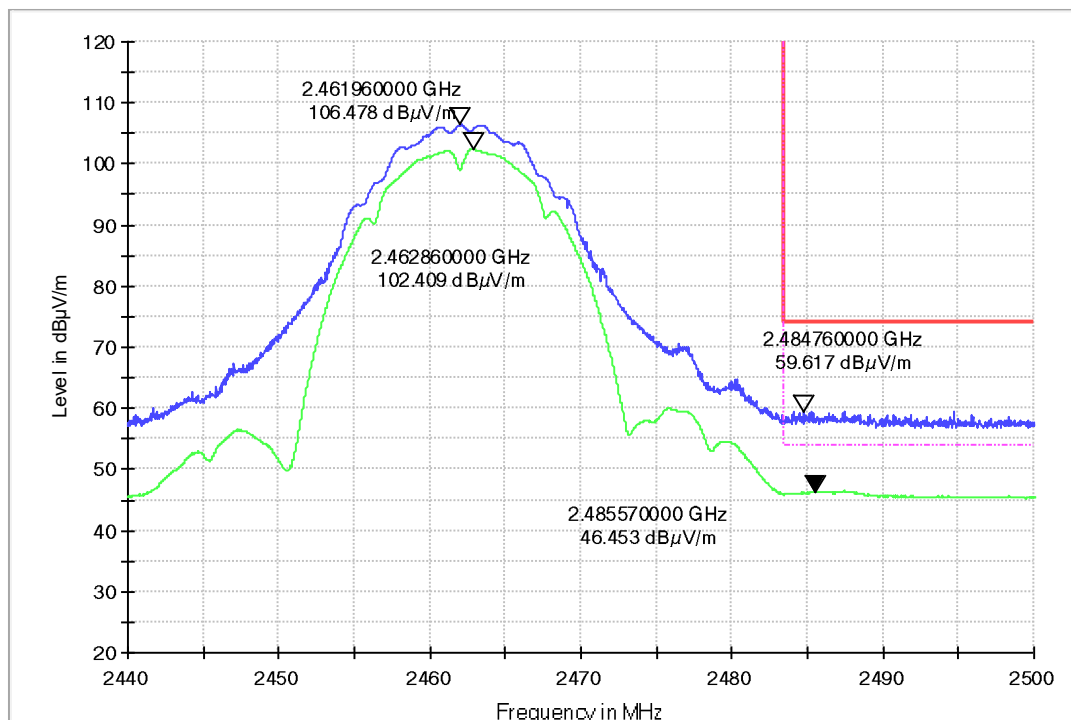
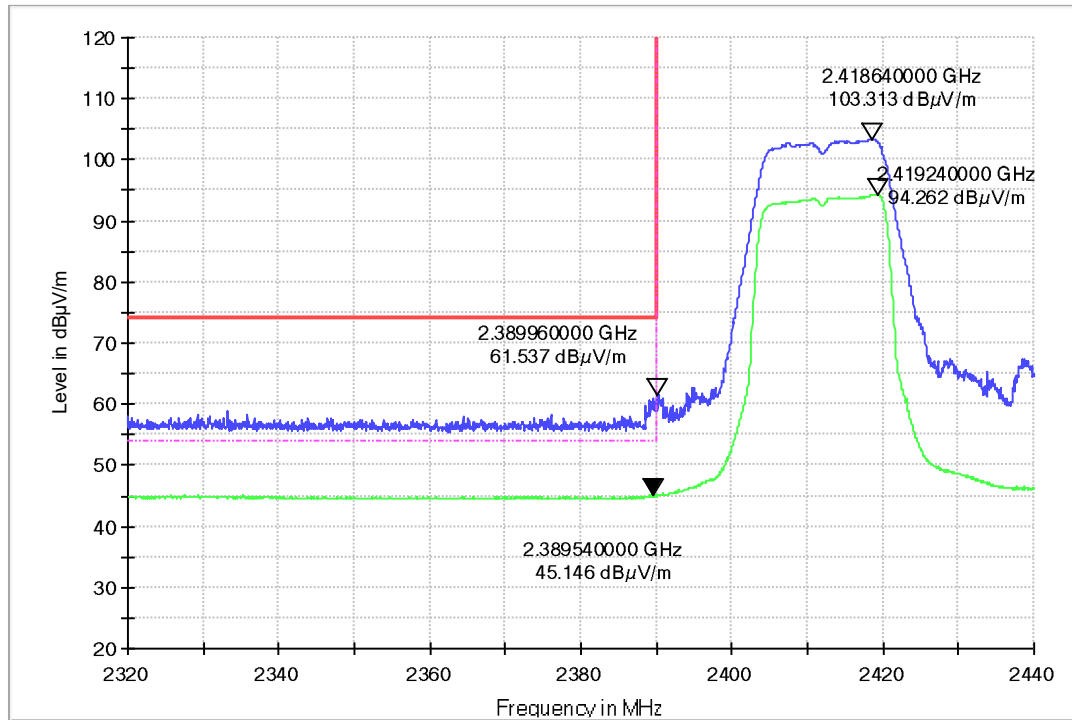


Figure 10: Radiated Band-Edge, 802.11g, 2412MHz, H

XXY- 2310~ 2410 BE 1-18GHz_HL050_FSV40_Pre-10-YUNFANG


Figure 11: Radiated Band-Edge, 802.11g, 2412MHz, V

XXY- 2310~ 2410 BE 1-18GHz_HL050_FSV40_Pre-10-YUNFANG

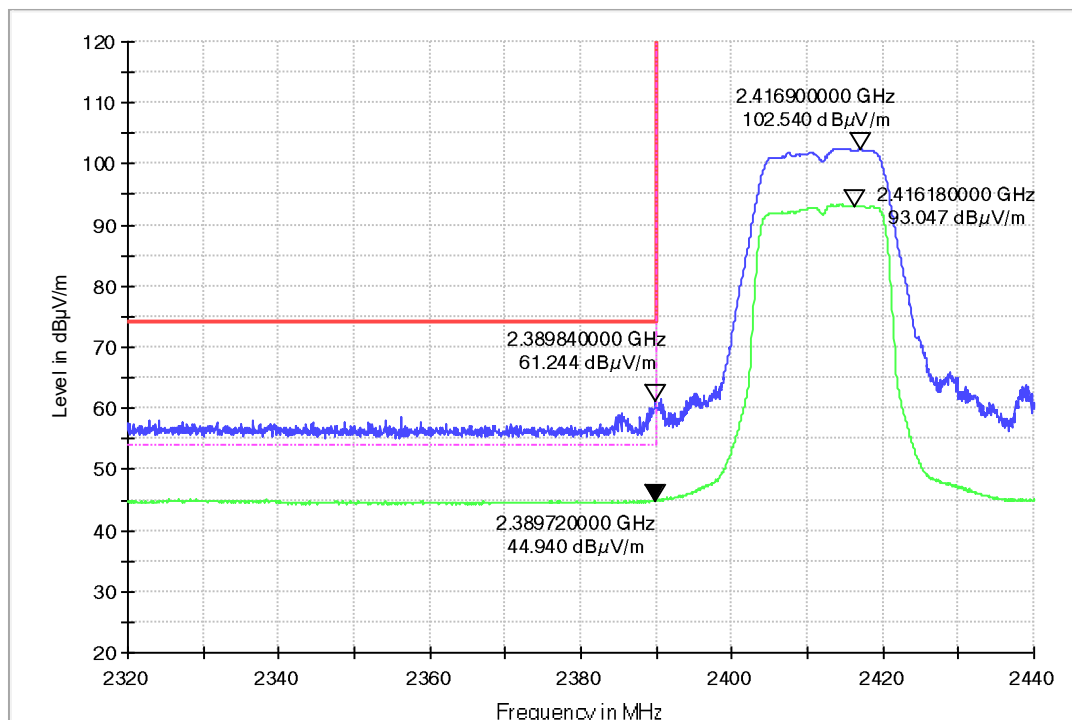
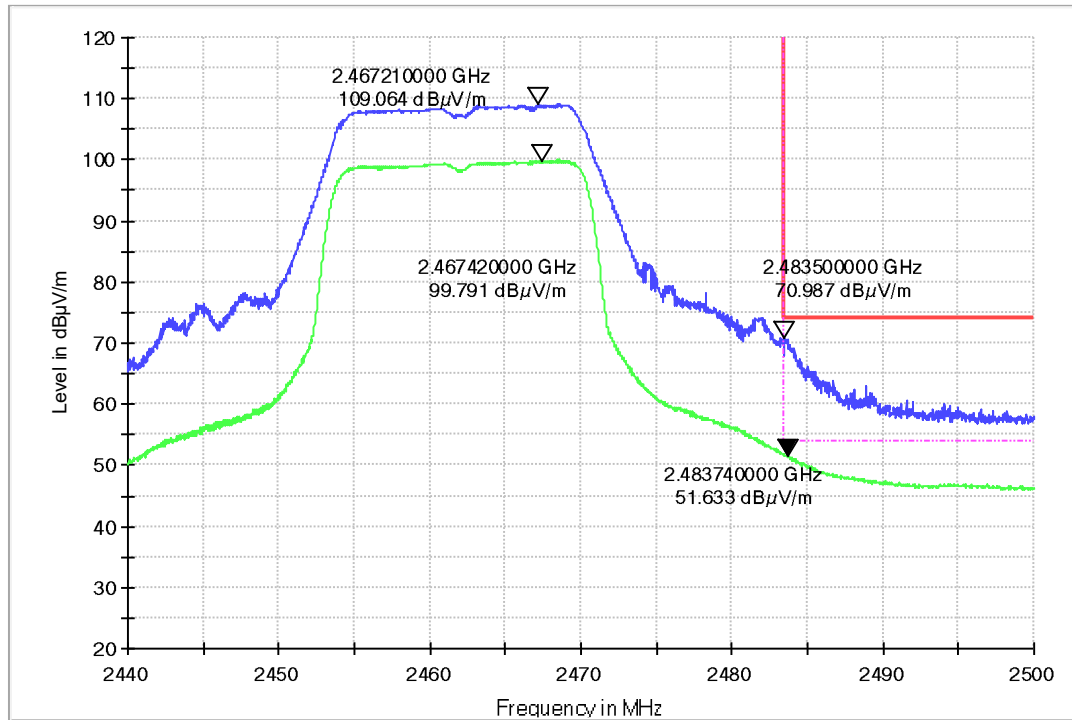


Figure 12: Radiated Band-Edge, 802.11g, 2462MHz, H

XXY-2470° 2500 BE_1-18GHz_HL050_FSV40_Pre-10-YUNFANG


Figure 13: Radiated Band-Edge, 802.11g, 2462MHz, V

XXY-2470° 2500 BE_1-18GHz_HL050_FSV40_Pre-10-YUNFANG

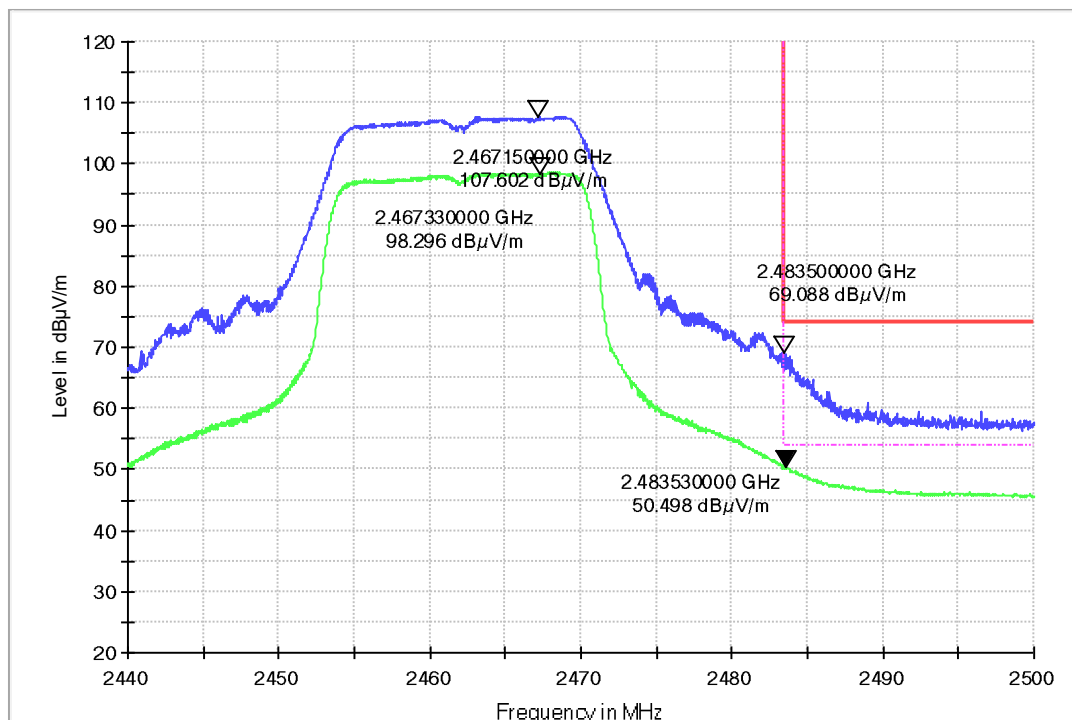
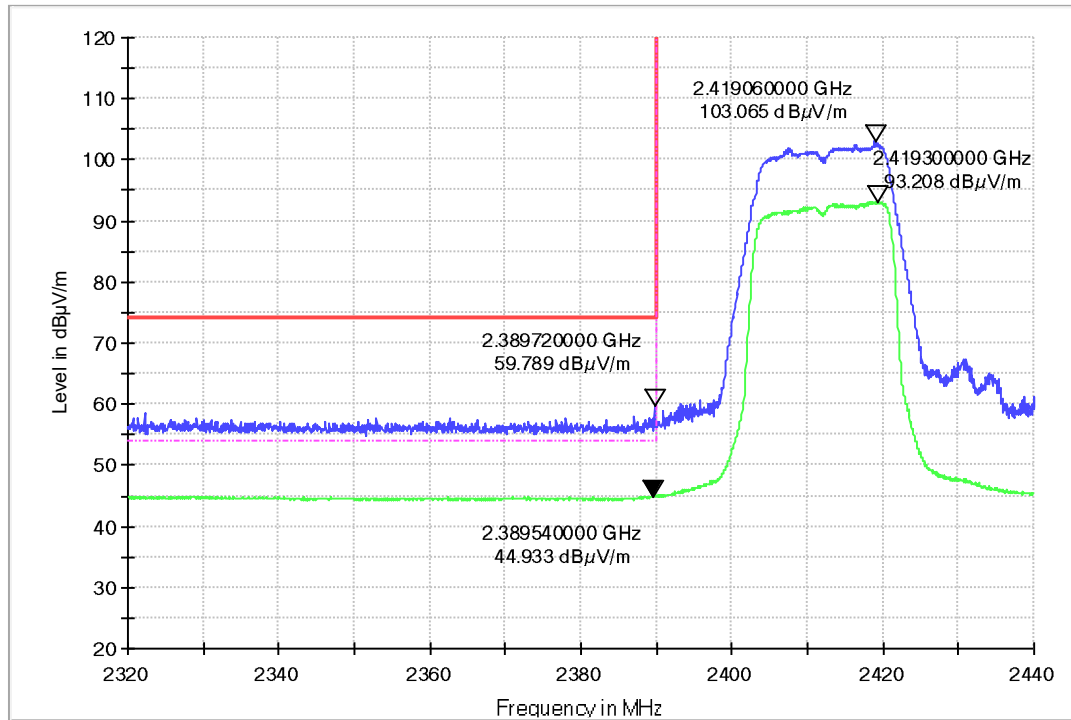


Figure 14: Radiated Band-Edge, 802.11n-HT20, 2412MHz, H

XXY- 2310~ 2410 BE 1-18GHz_HL050_FSV40_Pre-10-YUNFANG


Figure 15: Radiated Band-Edge, n-HT20, 2412MHz, V

XXY- 2310~ 2410 BE 1-18GHz_HL050_FSV40_Pre-10-YUNFANG

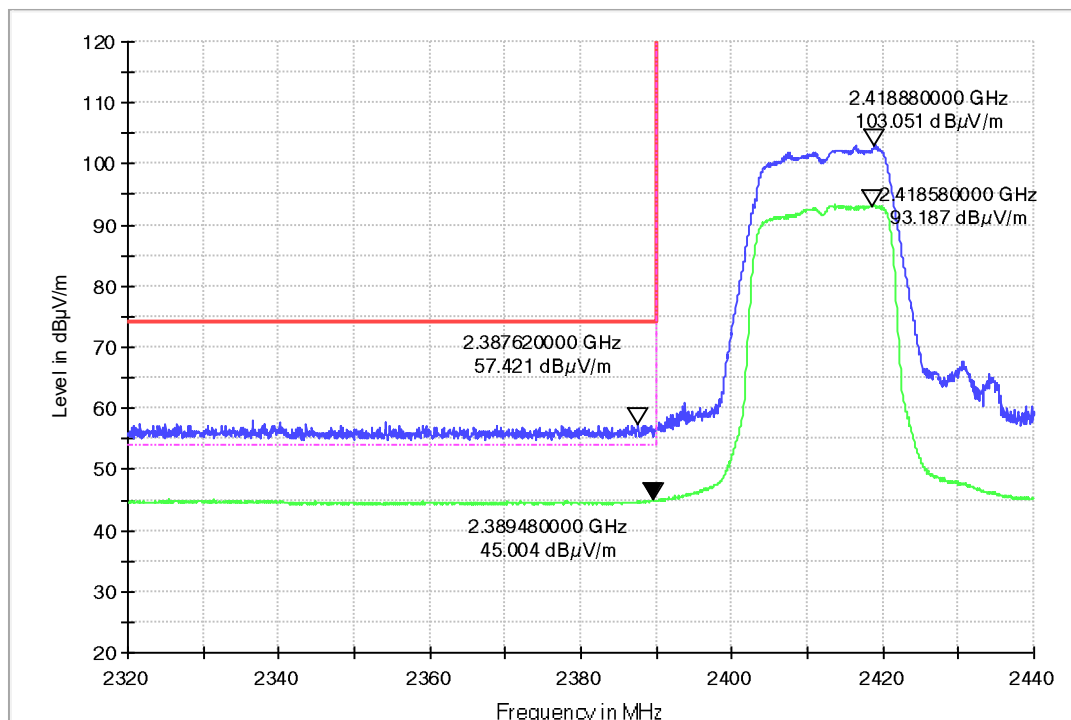
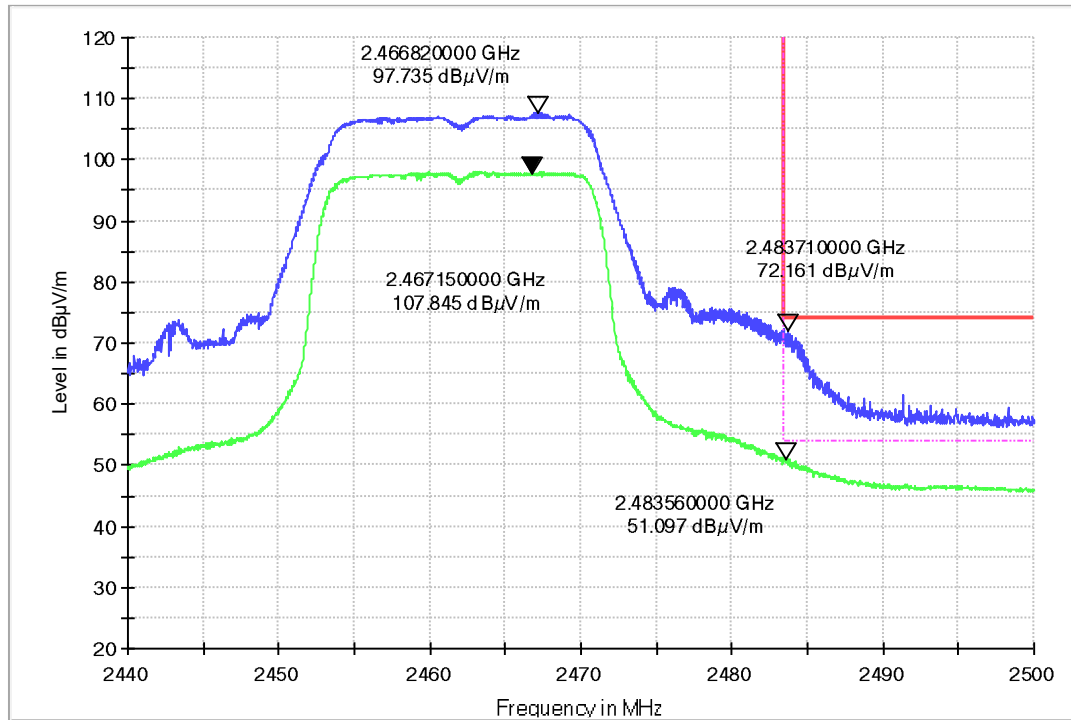


Figure 16: Radiated Band-Edge, 802.11n-HT20, 2462MHz, H

XXY-2470° 2500 BE_1-18GHz_HL050_FSV40_Pre-10-YUNFANG


Figure 17: Radiated Band-Edge, n-HT20, 2462MHz, V

XXY-2470° 2500 BE_1-18GHz_HL050_FSV40_Pre-10-YUNFANG

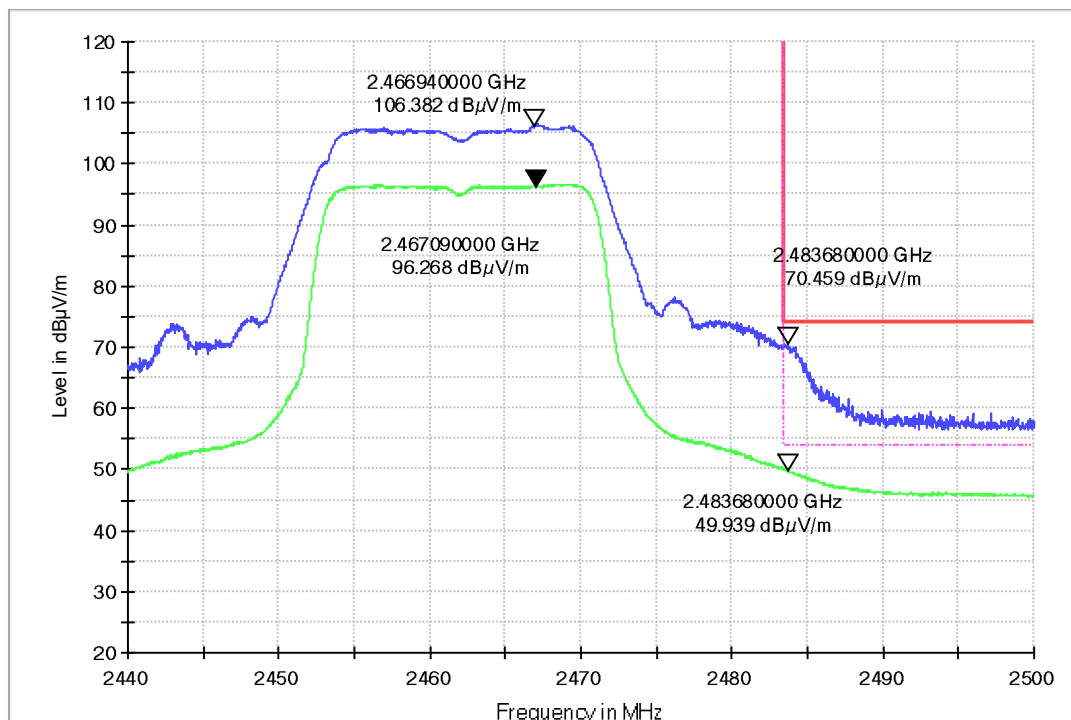
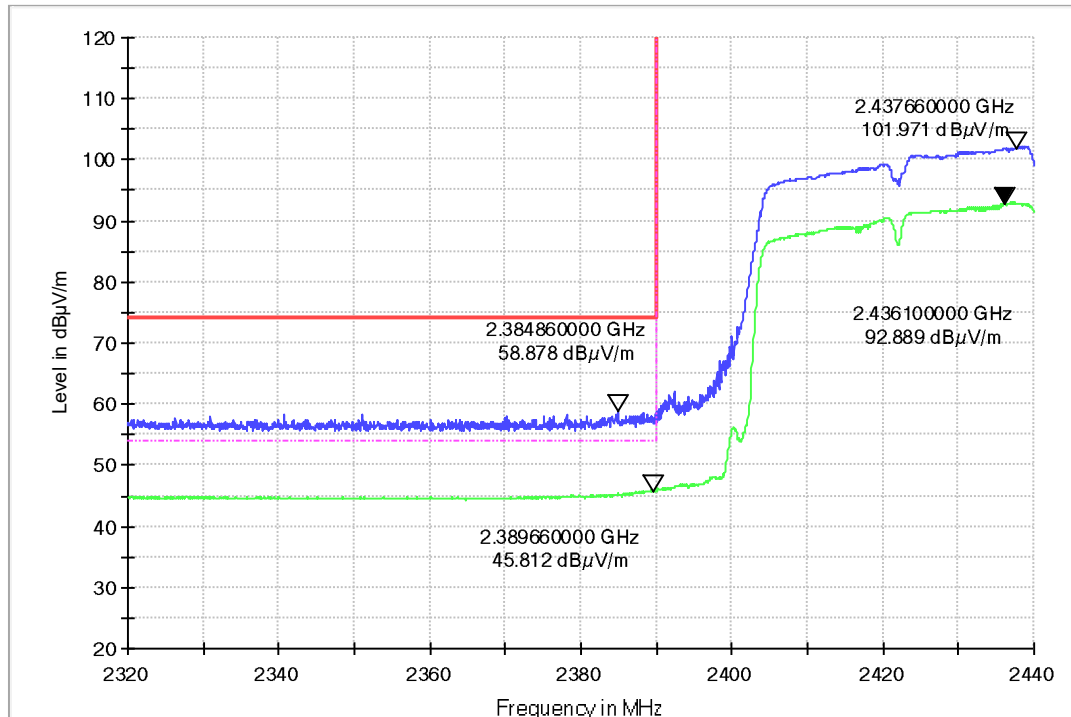


Figure 18: Radiated Band-Edge, 802.11n-HT40, 2422MHz, H

XXY- 2310~ 2410 BE 1-18GHz_HL050_FSV40_Pre-10-YUNFANG


Figure 19: Radiated Band-Edge, n-HT40, 2422MHz, V

XXY- 2310~ 2410 BE 1-18GHz_HL050_FSV40_Pre-10-YUNFANG

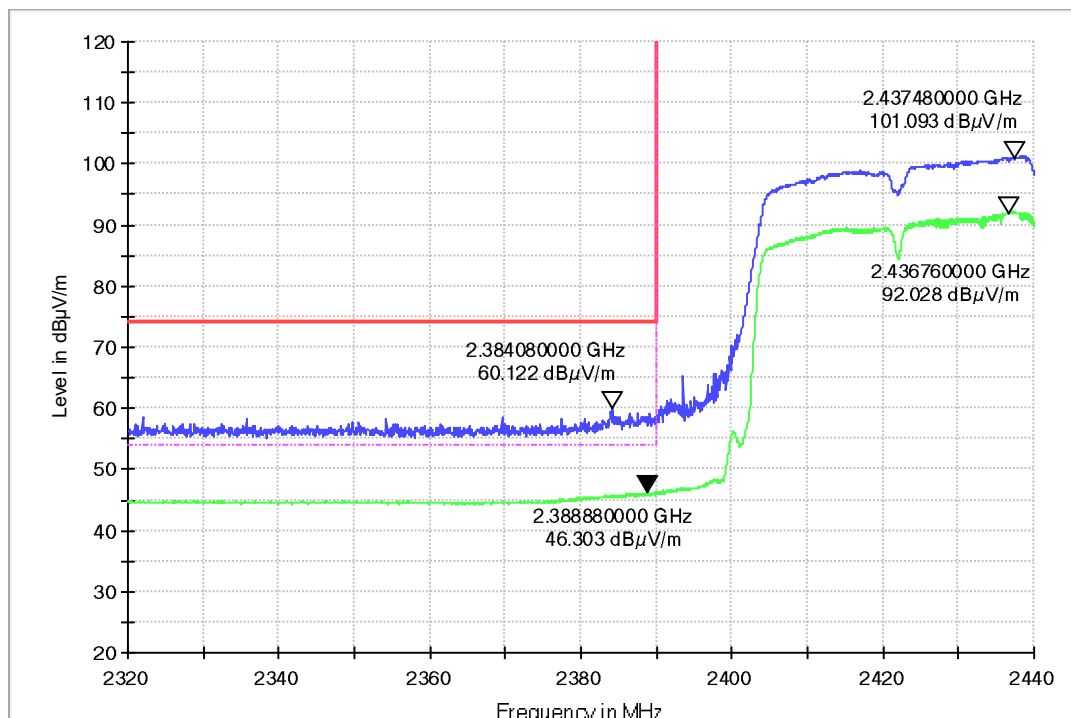
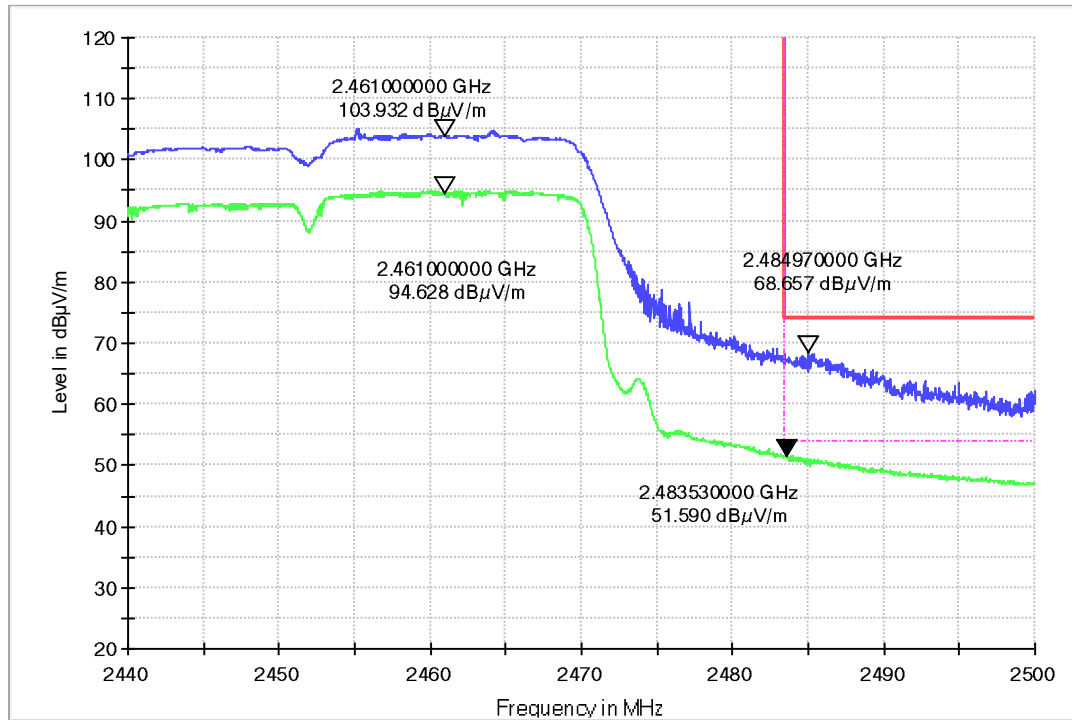
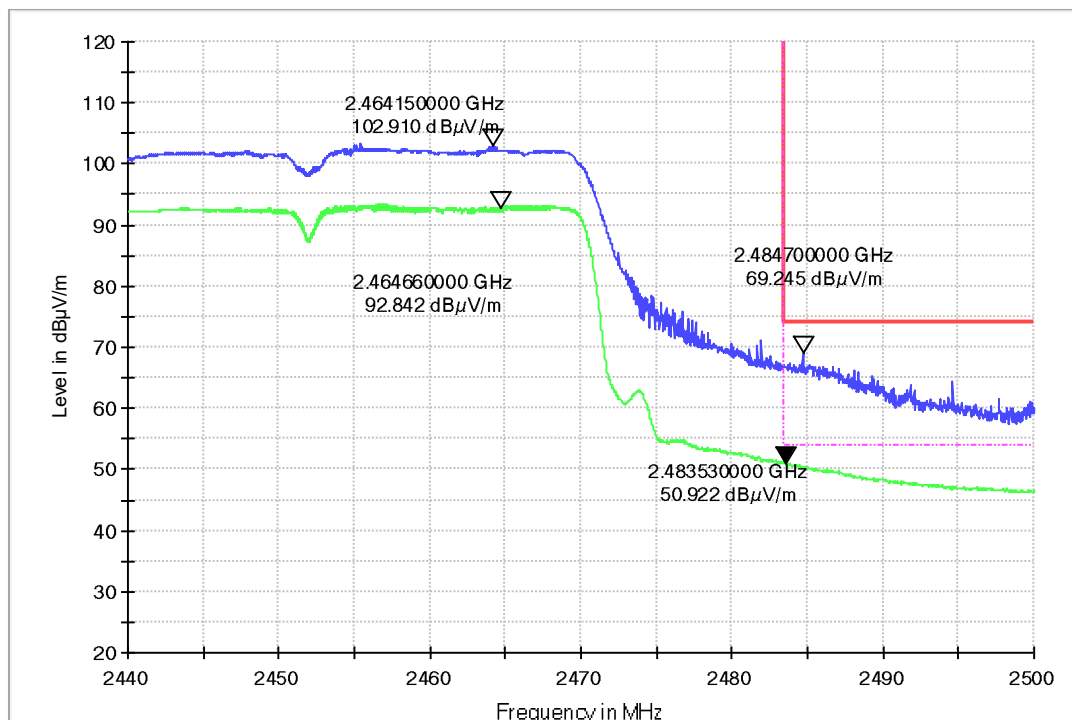


Figure 20: Radiated Band-Edge, 802.11n-HT40, 2452MHz, H

XXY-2470° 2500 BE_1-18GHz_HL050_FSV40_Pre-10-YUNFANG


Figure 21: Radiated Band-Edge, n-HT40, 2452MHz, V

XXY-2470° 2500 BE_1-18GHz_HL050_FSV40_Pre-10-YUNFANG



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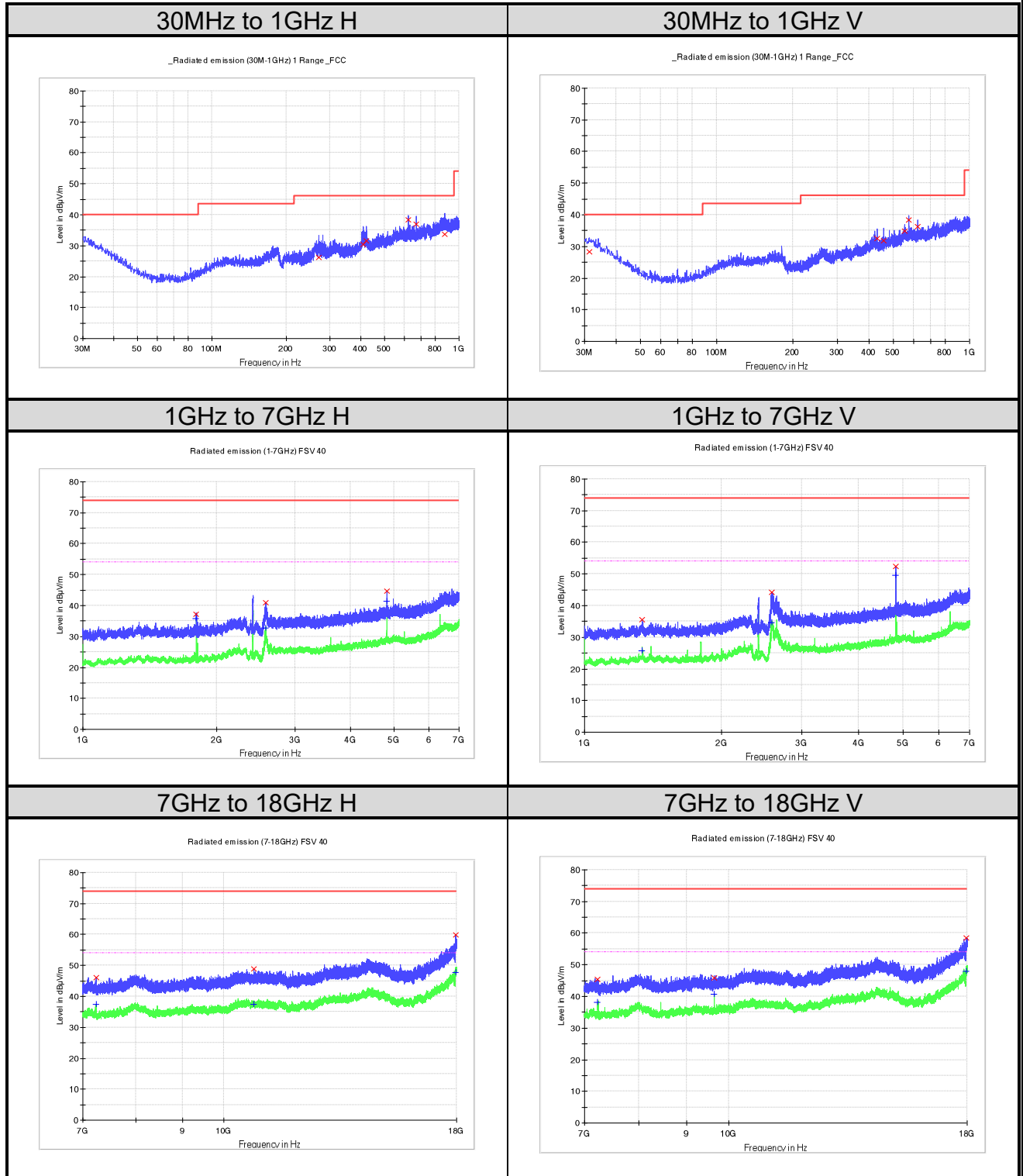
5.3.2 Radiated Spurious Emission

RESULT:**Pass**

Date of testing	: 2025-12-24
Ambient temperature	: 21.4°C
Relative humidity	: 47.5%
Atmospheric pressure	: 101kPa
Test requirement	: FCC Part 15.247(d) FCC Part 15.209(a)
Test procedure	: ANSI C63.10-2020+Cor. 1-2023+C63.10a- 2024+Errata to C63.10a-2024
Test voltage	: AC120V, 60Hz
Test modes applied	: A

Note:

For the frequency range from 18GHz to 25GHz, no emission was found.

Figure 22: Radiated Spurious Emission, 802.11b, 2412MHz


Limit and Margin
QP

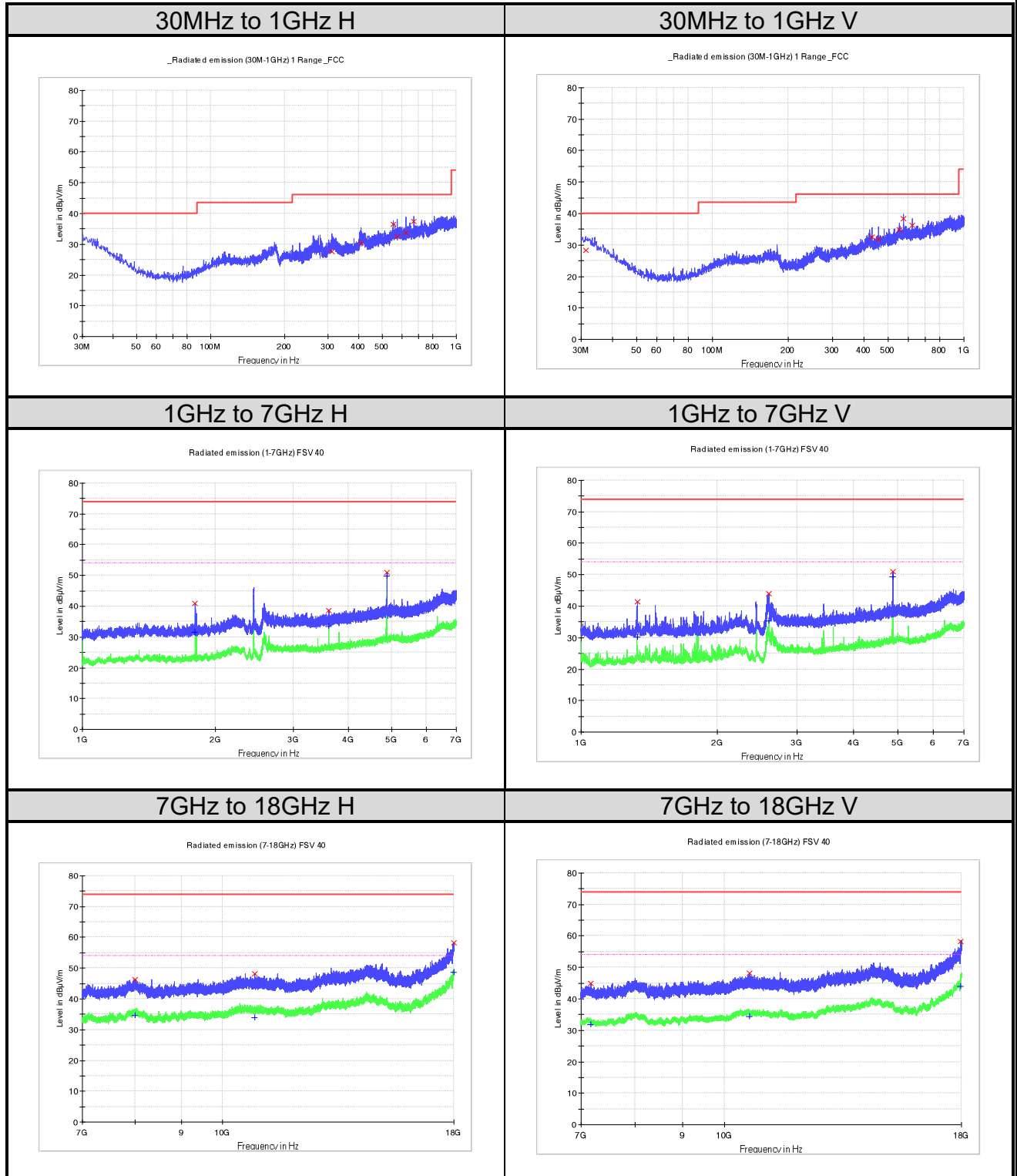
Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
271.287500	26.3	H	20.1	19.7	46.0
408.057500	30.4	H	23.5	15.6	46.0
420.425000	31.7	H	24.0	14.3	46.0
624.003750	38.4	H	26.9	7.6	46.0
672.140000	37.0	H	26.6	9.0	46.0
875.476250	33.6	H	28.6	12.4	46.0
30.606250	28.7	V	25.1	11.3	40.0
34.243750	26.6	V	23.0	13.4	40.0
128.212500	24.5	V	18.6	19.0	43.5
185.078750	26.2	V	15.9	17.3	43.5
480.080000	28.9	V	24.7	17.1	46.0
527.973750	37.0	V	25.1	9.0	46.0

PK

Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
1799.363636	37.2	H	-18.8	36.8	74.0
2581.000000	41.0	H	-15.8	33.0	74.0
4823.909091	44.7	H	-11.2	29.3	74.0
7235.125000	46.2	H	-6.1	27.8	74.0
10783.656250	48.9	H	-2.1	25.1	74.0
17979.718750	59.8	H	11.8	14.2	74.0
1338.181818	35.5	V	-18.7	38.5	74.0
2573.909091	44.2	V	-15.8	29.8	74.0
4824.000000	52.4	V	-11.2	21.6	74.0
7234.437500	45.4	V	-6.1	28.6	74.0
9647.906250	45.9	V	-4.2	28.1	74.0
17957.031250	58.5	V	11.4	15.5	74.0

AV

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1799.363636	35.8	H	-18.8	18.2	54.0
2581.000000	32.7	H	-15.8	21.3	54.0
4823.909091	41.4	H	-11.2	12.6	54.0
7235.125000	37.4	H	-6.1	16.6	54.0
10783.656250	37.4	H	-2.1	16.6	54.0
17979.718750	47.7	H	11.8	6.3	54.0
1338.181818	25.6	V	-18.7	28.4	54.0
2573.909091	34.6	V	-15.8	19.4	54.0
4824.000000	49.7	V	-11.2	4.3	54.0
7234.437500	38.0	V	-6.1	16.0	54.0
9647.906250	40.7	V	-4.2	13.3	54.0
17957.031250	48.0	V	11.4	6.0	54.0

Figure 23: Radiated Spurious Emission, 802.11b, 2437MHz


Limit and Margin
QP

Frequency (MHz)	QuasiPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
310.451250	27.6	H	20.2	18.4	46.0
408.057500	30.3	H	23.5	15.7	46.0
551.981250	36.5	H	26.5	9.5	46.0
576.110000	32.6	H	26.5	13.4	46.0
624.125000	33.7	H	26.9	12.3	46.0
672.018750	37.5	H	26.6	8.5	46.0
31.333750	28.3	V	24.7	11.7	40.0
432.065000	32.4	V	23.8	13.6	46.0
455.951250	31.8	V	24.2	14.2	46.0
551.981250	35.0	V	26.5	11.1	46.0
575.988750	38.3	V	26.4	7.7	46.0
624.003750	36.2	V	26.9	9.8	46.0

PK

Frequency (MHz)	MaxPeak (dBµV/m)	Pol	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
1799.909091	41.0	H	-18.8	33.0	74.0
3600.181818	38.6	H	-14.1	35.4	74.0
4874.363636	51.0	H	-11.1	23.0	74.0
7999.281250	46.2	H	-3.3	27.8	74.0
10839.000000	48.2	H	-2.0	25.8	74.0
17991.750000	58.2	H	12.0	15.8	74.0
1330.818182	41.4	V	-18.7	32.6	74.0
2595.181818	44.0	V	-15.7	30.0	74.0
4873.818182	51.1	V	-11.1	22.9	74.0
7170.156250	44.8	V	-5.5	29.2	74.0
10633.781250	48.2	V	-1.2	25.8	74.0
17980.062500	58.4	V	11.8	15.6	74.0

AV

Frequency (MHz)	Average (dBµV/m)	Pol	Corr. (dB/m)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1799.909091	31.6	H	-18.8	22.4	54.0
3600.181818	33.5	H	-14.1	20.5	54.0
4874.363636	49.8	H	-11.1	4.2	54.0
7999.281250	34.6	H	-3.3	19.4	54.0
10839.000000	34.0	H	-2.0	20.0	54.0
17991.750000	48.7	H	12.0	5.3	54.0
1330.818182	30.1	V	-18.7	23.9	54.0
2595.181818	35.4	V	-15.7	18.6	54.0
4873.818182	49.3	V	-11.1	4.7	54.0
7170.156250	31.9	V	-5.5	22.2	54.0
10633.781250	34.4	V	-1.2	19.6	54.0
17980.062500	43.9	V	11.8	10.1	54.0

Figure 24: Radiated Spurious Emission, 802.11b, 2462MHz
